



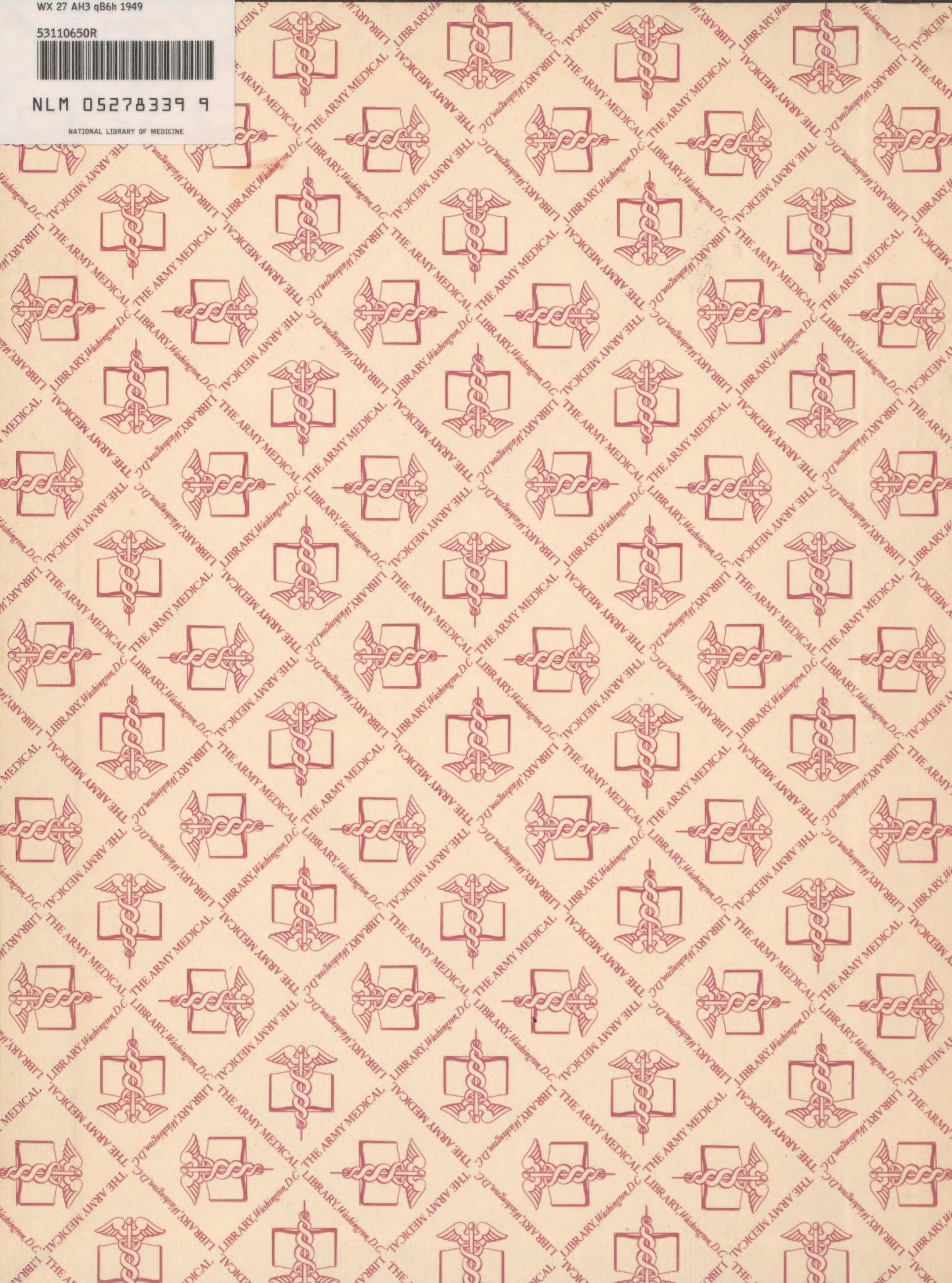


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**REVISED REPORT OF  
HOSPITAL SURVEY AND PLANNING  
Territory of Hawaii**



**FEBRUARY - 1949**

**TERRITORY OF HAWAII, BOARD OF HEALTH  
HONOLULU, T.H.**







JUL 12 1951

### NECESSITY FOR REVISION

This report has been revised in accordance with Public Law 725, Section 623 (a) (10), and with the United States Public Health Service Regulations, Title 42, Chapter I, Section 53.72 (d), which provide that the Territorial Agency shall, from time to time as necessary but at least annually, review the overall hospital construction program and, at a time fixed by the Surgeon General, submit to him the revised report.

Factors affecting the original survey results and hospital construction program include the following:

Population changes which affect authorized bed allowance ratios;

Tuberculosis death rate changes which affect the authorized tuberculosis bed allowance ratios;

Closure or discontinuance of certain hospitals and health centers;

Increase or decrease in normal bed capacities of existing hospitals;

Increase in the number of hospitals and health centers by requisition or construction, actual or contracted for;

Increase or decrease in the number of hospital and hospital center facilities considered necessary;

Changes in status as to acceptability and non-acceptability; and,

Changes in priorities of construction projects.

These changes, though in many instances of minor importance, necessitate alterations in nearly every part of the report.

Any page of the original report which does not require alteration remains as originally issued on white paper. If any page requires alteration, this is shown on a substitute page on colored paper which is inserted immediately behind the page to be altered.



## SUMMARY OF CHANGES IN REVISION

The revised report contains many changes. Those of some importance include the following:

- Page 3 Miss Margaret M. L. Catton resigned from the Advisory Council; no replacement.
- Page 4 Substitution of Dr. Henry A. Freitas for Mr. Charles F. Honeywell, on the Board of Health.
- Page 7 Change in Letter of Transmittal to the Governor, noting the authority for revision of the report.

Pages Amendments to Public Law 725.  
11, 13  
14, 16

Pages Population changes. Increase on Oahu from 358,911 to 371,649.  
44, 45

Pages Changes in analysis of survey data due to  
49 to  
64

- a. Increase in Oahu population.
- b. Closure of five general and one chronic hospitals:

Kona Community	18 beds
Mitamura	9 "
Betsui	14 "
Koloa Sugar Co.	22 "
Maui Agric. Co.	80 "
Eleele	4 "

- c. Addition of Queen's Mental Unit to the inventory of hospitals.
- d. Upward and downward revisions of the normal bed capacities of a number of hospitals and of acceptable beds.
- e. Changes in authorized tuberculosis bed ratios because of changes in civilian deaths from tuberculosis in period 1944-8 compared to the period 1940-4.

The inventory shows a reduction in the territory from 59 to 54 hospitals and an increase from 4,548 to 4,955 normal beds.

Plantation hospitals dropped from 21 to 17.



General Beds in the territory decreased from 2,547 to 2,480. There was an increase on Oahu from 1,237 to 1,338; decrease on Hawaii from 611 to 576; decrease on Maui from 378 to 300; decrease on Kauai from 164 to 129; and, decrease on Molokai from 131 to 111.

Mental Beds in the territory increased from 809 to 934, all on Oahu.

Tuberculosis Beds in the territory increased from 1,078 to 1,252. Oahu's increased from 536 to 709; Hawaii's decreased from 225 to 216; Maui's increased from 202 to 212; and, Kauai's remained the same at 115.

Chronic Beds in the territory, all on Oahu increased from 114 to 289.

The number of authorized beds for the territory increased from 2,357 to 2,414 for general beds, from 2,620 to 2,683 for mental beds; decreased from 661 to 640 for tuberculosis beds; and, increased from 1,048 to 1,073 for chronic beds.

Pages 65 to 71      The chapter on health centers reflects changes of a minor nature such as:

- a. Changes in usage of certain existing facilities.
- b. Changes from acceptable to non-acceptable and vice versa, of certain existing facilities.
- c. Increase in number of programmed facilities, especially on Kauai.

Pages 72 to 74      The chapter on the summary of the territory's needs contains changes effected by changes in population on Oahu and by changes in the inventory of existing hospitals and beds and health centers.

- a. General Hospitals in the territory having been reduced in number by the closure of five of them, from 47 to 42, are only 14 in excess of the programmed number of 28. The additional general acceptable bed-needs have not changed materially - Oahu from 1,084 to 1,046; Hawaii 155 to 160; Maui 166 to 153; Kauai 49 to 65; Molokai 13 to 23; and, Lanai 9 to 17.
- b. Mental Hospitals, except for a possible new psychiatric hospital of 75 to 100 beds on Oahu and small, less than 10-bed mental units in the area hospital on each island except for Oahu, there is no change in the number of mental hospitals needed. The need for additional acceptable mental beds has been reduced from 1,931 to 1,749 by the increased capacity provided by new construction at the Territorial Hospital.



- c. Tuberculosis Hospitals. Construction of the new Puumale Hospital on Hawaii will leave only Kauai, of the four major islands, without an acceptable tuberculosis hospital. The total acceptable tuberculosis beds in the territory numbers 1,137 up from 437, due to new construction at Leahi Hospital on Oahu and of Puumale Hospital on Hawaii. It is assumed that Kauai Island should provide tuberculosis beds for its own residents even though, under existing ratios, there is an excess of acceptable tuberculosis beds in the Territory.
- d. Chronic Hospitals. There is little change in the number of existing ones. One small privately-owned facility closed - the 4-bed unit on Kauai. Five small privately-owned hospitals exist on Oahu. The territory still needs more and larger chronic hospitals or units, one on each island at least. The number of chronic beds in the territory increased from 114 to 289, all on Oahu, due to increased capacity provided at Maluhia Hospital.

Pages Numerous changes in the tabulations were necessary. These tabulations  
75 to all lead up to the bed-needs. The bed needs, or shortages, changed  
83 slightly as follows:

General	from 1,573	decreased to 1,464
Tuberculosis	" 222	" " 50
Mental	" 1,931	" " 1,749
Chronic	" 1,048	" " 898

Pages Only a few changes were necessary in the tabulation of the allocation  
92, of hospitals and beds such as follows:  
93

The Honolulu area's (Queen's, St. Francis, Kuakini) allotment of general beds is upped from 860 to 917. The acceptable general beds in the area is upped from 220 + 127 + 35 to 267 + 178 + 35.

The number of acceptable tuberculosis beds at Leahi is upped from 237 to 709.

The number of acceptable chronic beds at Maluhia is increased from 0 to 175.

The number of allocated mental beds is increased from 2,595 to 2,683.

The number of acceptable mental beds in the Territorial Hospital is increased from 694 to 909.

The number of general beds allocated to the Hilo area is increased from 159 to 171. The number of acceptable general beds in the area is upped from 138 to 171.



The number of general beds allocated to the Kohala area is dropped from 50 to 44.

The number of general beds allocated to the Kealahou area dropped from 52 to 46.

The number of acceptable tuberculosis beds on Hawaii Island is upped from 0 to 216.

The number of acceptable general beds in the Wailuku-Puunene-Kahului area is increased from 0 to 35.

The number of acceptable tuberculosis beds on Maui Island is increased from 202 to 212.

Pages 95 to 102      Priorities. Changes in tabulations of priority calculations bring about changes in priority order so that it now is as follows:

1st Hawaii, Maui, Kauai, Molokai and Lanai for chronic beds.  
(Oahu now falls into the 2nd priority group.)

Kauai is in the 1st priority group for tuberculosis beds for it is assumed that it must provide tuberculosis beds for its own residents.

Molokai and Lanai for general beds.

2nd Oahu for chronic beds.

3rd Maui for general beds (from 2nd to 3rd).

4th Territory of Hawaii for mental beds (from 3rd to 4th).

5th Oahu for general beds (from 4th to 5th).

6th Hawaii for general beds (from 5th to 6th).  
(Oahu loses its priority for tuberculosis beds.)

7th Kauai for general beds.

Stated in other words, construction of new facilities with federal aid will have the following priority order:

1st A chronic hospital or unit on each island except Oahu.

A tuberculosis hospital on Kauai.

A general hospital facility on Molokai and Lanai.

2nd Chronic units on Oahu.

3rd General hospital on Maui.



4th Mental hospital beds on Oahu.

5th General hospital beds on Oahu.

6th General hospital beds on Hawaii.

7th General hospital beds on Kauai.

Pages 103 & 105      Table 1. The inventory of hospitals and beds reflects changes in certain figures including the following:

Number of hospitals	decrease from	59	to	54
Normal beds	" "	5,394	"	4,955
General beds	increase "	2,479	"	2,480
Mental beds	" "	809	"	934
Tuberculosis beds	" "	1,146	"	1,252
Chronic beds	" "	114	"	289
Non-profit gov't hospitals	decrease "	14	"	13
Non-profit private hospitals	increase "	12	"	13
Proprietary plant. hospitals	decrease "	21	"	17
Proprietary individual hospitals	" "	14	"	11
Non-acceptable beds	" "	2,606	"	1,759
Acceptable beds	increase "	1,942	"	3,196

Pages 107 to 115      Table 2. Omnibus information contains many changes of a statistical nature - the important ones forming the basis for changes in the pages of this revision.

Pages 117 to 121      Table 3. Inventory of public health centers contains changes of minor importance which are reflected in the pages of this report.

Pages 123 to 140      Maps. Minor changes which reflect increase in population in Oahu and alteration, where needed, of the symbol of the "area hospital" from a solid to an open cross.



Hawaii (Ter.) Board of Health, Division of  
Hospital Planning

HOSPITALS AND PUBLIC HEALTH FACILITIES

IN HAWAII

INVENTORY OF EXISTING HOSPITALS AND  
PUBLIC HEALTH CENTERS

SURVEY OF THE NEED FOR CONSTRUCTION OF  
HOSPITALS AND HEALTH CENTERS

PROGRAM FOR CONSTRUCTION OF HOSPITALS AND  
HEALTH CENTERS TO FURNISH ADEQUATE  
SERVICES TO ALL OF THE PEOPLE

(in accordance with the provisions of the federal  
Hospital Survey and Construction Act)

BOARD OF HEALTH

TERRITORY OF HAWAII

HONOLULU, T. H.



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## TERRITORIAL ADVISORY COUNCIL MEMBERS

### Mr. Kenneth W. Roehrig, Acting Chairman

Mr. Roehrig is connected with one of Honolulu's leading architectural firms. Mr. Roehrig was last year president of the Honolulu Rotary Club and president of the Honolulu Architects Association.

### Mr. Vergil F. Bradfield

Mr. Bradfield is by profession a hospital administrator. He has held such a position in China and the United States and is now assistant administrator and business manager of the Territory's largest tuberculosis hospital, Leahi Hospital of Honolulu.

### Mr. Reginald Carter

Mr. Carter is the executive manager of the Honolulu Community Chest. He was formerly business manager of the Hawaii Medical Service Association, the Territory's voluntary health insurance plan.

### Miss Margaret M. L. Catton

Miss Catton is Director of the Social Service of the Medical Social Service Association of Hawaii which is a non-governmental organization. Through this organization, she was the pioneer in the Territory for medical social service.

### Robert B. Faus, M. D.

Dr. Faus is president of the Territorial Medical Association and during the war was a colonel in the United States Army in command of a five hundred bed hospital. He has also in the past been the chief physician of the City and County of Honolulu.

### Nils P. Larsen, M.D.

Dr. Larsen is a practicing physician in Honolulu. For 20 years, he was the Medical Director and pathologist of the Queen's Hospital and he has been for 17 years the medical adviser to the Hawaiian Sugar Planters' Association.

### Mr. Gilbert G. Lentz

Mr. Lentz is executive secretary of the Public Finance Committee of the Honolulu Chamber of Commerce and was formerly in charge of the Legislative Reference Bureau of the Territory.

### Miss Rhoda V. Lewis

Miss Lewis is first Assistant Attorney General of the Territory.

### Bishop James J. Sweeney

Bishop Sweeney is the Catholic Bishop of the Territory and has shown an interest in not only the Catholic hospitals here but other hospitals as well and is a member of the Executive Committee of the Territory's Hospital Council.

### Mr. Charles M. Wright

Mr. Wright is now connected with the Honolulu Rapid Transit Company and was formerly closely associated with labor movement in the Territory.

### Dr. Charles L. Wilbar, Jr. (member, ex-officio)

Dr. Wilbar is President of the Board of Health, Territory of Hawaii.



TERRITORIAL BOARD OF HEALTH MEMBERS

Dr. Charles L. Wilbar, Jr., President

Mr. Walter D. Ackerman

Dr. Robert B. Faus

Mr. Charles F. Honeywell

Dean A. R. Keller

Mrs. Hazel B. Mattson

Mr. Fred Patterson

Dr. F. J. Pinkerton

Mr. W. J. Wilbert



TERRITORIAL ADVISORY COUNCIL MEMBERS

Insert, Page 3-A

Note: Miss Margaret M. L. Catton, resigned

TERRITORIAL BOARD OF HEALTH MEMBERS

Insert, Page 4-A

Replace name of Mr. Charles F. Honeywell with name of Dr. Henry A. Freitas.

Replace name of Dr. F. J. Pinkerton with name of Dr. Henry Gotshalk.





## ACKNOWLEDGMENT

Acknowledgment and thanks are expressed to the following for assistance in the preparation of this report:

American College of Surgeons  
American Medical Association  
American Hospital Association  
American Dental Association  
Commission on Hospital Care of Chicago  
Territorial Hospital Service Study Commission  
Territorial Medical Association of Hawaii  
Honolulu County Medical Society  
Honolulu Chamber of Commerce  
Nurses Association, Territory of Hawaii  
United States Census Bureau  
United States Public Health Service  
Pineapple Growers Association of Hawaii  
Territorial Board of Hospitals and Settlement  
Hawaiian Sugar Planters' Association  
Administrators of all the hospitals in the Territory of Hawaii  
Hawaii Chapter of the American Institute of Architects  
Members of the staff of the Territorial Department of Health





LETTER OF TRANSMITTAL

February 28, 1949

Honorable Ingram M. Stainback  
Governor of Hawaii  
Honolulu, T. H.

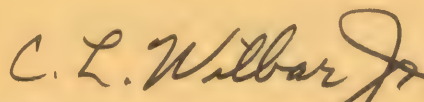
Sir:

Attached is the revised Report of Hospital Survey and Planning prepared by the Health Department in accordance with Public Law 725, 79th Congress, Section 623, (a) (10).

Revised material is printed on colored sheets which are inserted after the sheets which are revised.

The revisions in this report were approved by the Territorial Advisory Council and by the Board of Health.

Respectfully Submitted,



---

C. L. WILBAR JR., M.D.  
President, Board of Health





PUBLIC LAW 725--79th CONGRESS

Chapter 958--2nd Session

S. 191

AN ACT

To amend the Public Health Service Act to authorize grants to the States for surveying their hospitals and public health centers and for planning construction of additional facilities, and to authorize grants to assist in such construction.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Hospital Survey and Construction Act."

Sec. 2. The Public Health Service Act (consisting of titles I to V, inclusive, of the Act of July 1, 1944, 58 Stat. 682) is hereby amended by adding at the end thereof the following new title:

"TITLE VI--CONSTRUCTION OF HOSPITALS

"Part A--Declaration of Purpose

"Sec. 601. The purpose of this title is to assist the several States--

"(a) to inventory their existing hospitals (as defined in section 631 (e) ), to survey the need for construction of hospitals, and to develop programs for construction of such public and other nonprofit hospitals as will, in conjunction with existing facilities, afford the necessary physical facilities for furnishing adequate hospital, clinic, and similar services to all their people; and

"(b) to construct public and other nonprofit hospitals in accordance with such programs.

"PART B--SURVEYS AND PLANNING

"Authorization of Appropriation

"Sec. 611. In order to assist the States in carrying out the purposes of section 601 (a), there is hereby authorized to be appropriated the sum of \$3,000,000, to remain available until expended. The sums appropriated under this section shall be used for making payments to States which have submitted, and had approved by the Surgeon General, State applications for funds for carrying out such purposes.

"STATE APPLICATIONS

"Sec. 612. (a) To be approved, a State application for funds for carrying out the purposes of section 601 (a) must--



"(1) designate a single State agency as the sole agency for carrying out such purposes: Provided, That after a State plan has been approved under section 623, any further survey or programing functions shall be carried out, pursuant to section 623 (a) (10), by the agency designated in accordance with section 623 (a) (1);

"(2) provide for the designation of a State advisory council, which shall include representatives of nongovernment organizations or groups, and of State agencies, concerned with the operation, construction, or utilization of hospitals, including representatives of the consumers of hospital services selected from among persons familiar with the need for such services in urban or rural areas, to consult with the State agency in carrying out such purposes;

"(3) provide for making an inventory and survey in accordance with section 601 (a) containing all information required by the Surgeon General, and for developing a program in accordance with section 601 (a) and with regulations prescribed under section 622; and

"(4) provide that the State agency will make such reports, in such form and containing such information, as the Surgeon General may from time to time reasonably require, and give the Surgeon General, upon demand, access to the records on which such reports are based.

"(b) The Surgeon General shall approve any application for funds which complies with the provisions of subsection (a).

#### "ALLOTMENTS TO STATES

"Sec. 613. (a) Each State for which a State application under section 612 has been approved shall be entitled to an allotment of such proportion of any appropriation made pursuant to section 611 as its population bears to the population of all the States, and within such allotment it shall be entitled to receive  $33 \frac{1}{3}$  per centum of its expenditures in carrying out the purposes of section 601 (a) in accordance with its application: Provided, That no such allotment to any State shall be less than \$10,000. The Surgeon General shall from time to time estimate the sum to which each State will be entitled under this Section, during such ensuing period as he may determine, and shall thereupon certify to the Secretary of the Treasury the amount so estimated, reduced or increased, as the case may be, by any sum by which the Surgeon General finds that his estimate for any prior period was greater or less than the amount to which the State was entitled for such period. The Secretary of the Treasury shall thereupon, prior to audit or settlement by the General Accounting Office, pay to the State, at the time or times fixed by the Surgeon General, the amount so certified.

"(b) Any funds paid to a State under this section and not expended for the purposes for which paid shall be repaid to the Treasury of the United States.



## "PART C--CONSTRUCTION OF HOSPITALS AND RELATED FACILITIES

### "AUTHORIZATION OF APPROPRIATIONS

"Sec. 621. In order to assist the States in carrying out the purposes of section 601 (b), there is hereby authorized to be appropriated for the fiscal year ending June 30, 1947, and for each of the four succeeding fiscal years, the sum of \$75,000,000 for the construction of public and other nonprofit hospitals; and there are further authorized to be appropriated for such construction the sums provided in section 624. The sums appropriated pursuant to this section shall be used for making payments to States which have submitted, and had approved by the Surgeon General, State plans for carrying out the purposes of section 601 (b); and for making payments to political subdivisions of, and public or other nonprofit agencies in, such States.

### " GENERAL REGULATIONS

"Sec. 622. Within six months after the enactment of this title, the Surgeon General, with the approval of the Federal Hospital Council and the Administrator, shall by general regulation prescribe--

"(a) The number of general hospital beds required to provide adequate hospital services to the people residing in a State, and the general method or methods by which such beds shall be distributed among base areas, intermediate areas, and rural areas: Provided, That for the purposes of this title, the total of such beds for any State shall not exceed four and one-half per thousand population, except that in States having less than twelve and more than six persons per square mile the limit shall be five beds per thousand population, and in States having six persons or less per square mile the limit shall be five and one-half beds per thousand population; but if, in any area (as defined in the regulations) within the State, there are more beds than required by the standards prescribed by the Surgeon General, the excess over such standards may be eliminated in calculating this maximum allowance.

"(b) The number of beds required to provide adequate hospital services for tuberculous patients, mental patients, and chronic-disease patients in a State, and the general method or methods by which such beds shall be distributed throughout the State: Provided, That for the purposes of this title the total number of beds for tuberculous patients shall not exceed two and one-half times the average annual deaths from tuberculosis in the State over the five-year period from 1940 to 1944, inclusive, the total number of beds for mental patients shall not exceed five per thousand population, and the total number of beds for chronic-disease patients shall not exceed two per thousand population.

"(c) The number of public health centers and the general method of distribution of such centers throughout the State, which for the purposes of this title, shall not exceed one per thirty thousand population, except that in States having less than twelve persons per square mile, it shall not exceed one per twenty thousand population.

"(d) The general manner in which the State agency shall determine the priority of projects based on the relative need of different sections of the population



and of different areas lacking adequate hospital facilities, giving special consideration to hospitals serving rural communities and areas with relatively small financial resources.

"(e) General standards of construction and equipment for hospitals of different classes and in different types of location.

"(f) That the State plan shall provide for adequate hospital facilities for the people residing in a State, without discrimination on account of race, creed, or color, and shall provide for adequate hospital facilities for persons unable to pay therefor. Such regulation may require that before approval of any application for a hospital or addition to a hospital is recommended by a State agency, assurance shall be received by the State from the applicant that (1) such hospital or addition to a hospital will be made available to all persons residing in the territorial area of the applicant, without discrimination on account of race, creed, or color, but an exception shall be made in cases where separate hospital facilities are provided for separate population groups, if the plan makes equitable provision on the basis of need for facilities and services of like quality for each such group; and (2) there will be made available in each such hospital or addition to a hospital a reasonable volume of hospital services to persons unable to pay therefor, but an exception shall be made if such a requirement is not feasible from a financial standpoint.

"(g) General methods of administration of the plan by the designated State agency, subject to the limitations set forth in section 623 (a) (6) and (8).

#### "STATE PLANS

"Sec. 623. (a) After such regulations have been issued, any State desiring to take advantage of this part may submit a State plan for carrying out the purposes of section 601 (b). Such State plan must—

"(1) designate a single State agency as the sole agency for the administration of the plan, or designate such agency as the sole agency for supervising the administration of the plan;

"(2) contain satisfactory evidence that the State agency designated in accordance with paragraph (1) hereof will have authority to carry out such plan in conformity with this part;

"(3) provide for the designation of a State advisory council which shall include representatives of nongovernment organizations or groups, and of State agencies, concerned with the operation, construction, or utilization of hospitals, including representatives of the consumers of hospital services selected from among persons familiar with the need for such services in urban or rural areas, to consult with the State agency in carrying out such plans;

"(4) set forth a hospital construction program (A) which is based on a State-wide inventory of existing hospitals and survey of need; (B) which conforms with the regulations prescribed by the Surgeon General under section 622 (a), (b), and (c); (C) which, in the case of a State which has developed a program under part B of this title, conforms to the program so developed except for any modification

Insert, Page 11-A

At end of Section 621, insert the following:

"Sec. 2. There are hereby authorized to be appropriated for the fiscal year ending June 30, 1948, and for each of the three succeeding fiscal years, such sums as may be necessary to provide increased allotments for the construction of hospitals pursuant to the first sentence of Section 624 of the Public Health Service Act as amended by the first section of this Act."

1948-HR-4816





required in order to comply with regulations prescribed pursuant to section 622 (a), (b), and (c), and except for any modification recommended by the State agency designated pursuant to paragraph (1) of this subsection and approved by the Surgeon General; and (D) which meets the requirements as to lack of discrimination on account of race, creed, or color and for furnishing needed hospital services to persons unable to pay therefor, required by regulations prescribed under section 622 (f);

"(5) set forth the relative need determined in accordance with the regulations prescribed under section 622 (d) for the several projects included in such programs, and provide for the construction, insofar as financial resources available therefor and for maintenance and operation make possible, in the order of such relative need;

"(6) provide such methods of administration of the State plan, including methods relating to the establishment and maintenance of personnel standards on a merit basis (except that the Surgeon General shall exercise no authority with respect to the selection, tenure of office, or compensation of any individual employed in accordance with such methods), as the Surgeon General prescribes by regulation under section 622 (g);

"(7) provide minimum standards (to be fixed in the discretion of the State) for the maintenance and operation of hospitals which receive Federal aid under this part;

"(8) provide for affording to every applicant for a construction project an opportunity for hearing before the State agency;

"(9) provide that the State agency will make such reports in such form and containing such information as the Surgeon General may from time to time reasonably require, and give the Surgeon General, upon demand, access to the records upon which such information is based; and

"(10) provide that the State agency will from time to time review its hospital construction program and submit to the Surgeon General any modifications thereof which it considers necessary.

"(b) The Surgeon General shall approve any State plan and any modification thereof which complies with the provisions of subsection (a). If any such plan or modification thereof shall have been disapproved by the Surgeon General for failure to comply with subsection (a), the Federal Hospital Council shall, upon request of the State agency, afford it an opportunity for hearing. If such Council determines that the plan or modification complies with the provisions of such subsection, the Surgeon General shall thereupon approve such plan or modification.

"(c) No changes in a State plan shall be required within two years after initial approval thereof, or within two years after any change thereafter required therein, by reason of any change in the regulations prescribed pursuant to section 622, except with the consent of the State, or in accordance with further action by the Congress.

"(d) If any State, prior to July 1, 1948, has not enacted legislation providing that compliance with minimum standards of maintenance and operation shall be required in the case of hospitals which shall have received Federal aid under this title, such State shall not be entitled to any further allotments under Section 624.



## "ALLOTMENTS TO STATES

"Sec. 624. Each State for which a State plan has been approved prior to or during a fiscal year shall be entitled for such year to an allotment of a sum bearing the same ratio to the sums authorized to be appropriated pursuant to section 621 for such year as the product of (a) the population of such State and (b) the square of its allotment percentage (as defined in section 631 (a) ) bears to the sum of the corresponding products for all of the States. The amount of the allotment to a State shall be available, in accordance with the provisions of this part, for payment of  $33\frac{1}{3}$  per centum of the cost of approved projects within such State. The Surgeon General shall calculate the allotments to be made under this section and notify the Secretary of the Treasury of the amounts thereof. Sums allotted to a State for a fiscal year for construction and remaining unobligated at the end of such year shall remain available to such State for such purpose for the next fiscal year (and for such year only), in addition to the sums allotted for such State for such next fiscal year. Any amount of the sum authorized to be appropriated for a fiscal year which is not appropriated for such year, or which is not allotted in such year by reason of the failure of any State or States to have plans approved under this part, and any amount allotted to a State but remaining unobligated at the end of the period for which it is available to such State, is hereby authorized to be appropriated for the next fiscal year in addition to the sum otherwise authorized under section 621.

## "APPROVAL OF PROJECTS AND PAYMENTS FOR CONSTRUCTION

"Sec. 625. (a) For each project for construction pursuant to a State plan approved under this part, there shall be submitted to the Surgeon General through the State agency an application by the State or a political subdivision thereof or by a public or other nonprofit agency. Such application shall set forth (1) a description of the site for such project, (2) plans and specifications therefor in accordance with the regulations prescribed by the Surgeon General under section 622 (e), (3) reasonable assurance that title to such site is or will be vested solely in the applicant, (4) reasonable assurance that adequate financial support will be available for the construction of the project and for its maintenance and operation when completed, and (5) reasonable assurance that the rates of pay for laborers and mechanics engaged in construction of the project will be not less than the prevailing local wage rates for similar work as determined in accordance with Public Law 403 of the Seventy-fourth Congress, approved August 30, 1935, as amended. The Surgeon General shall approve such application if sufficient funds to pay  $33\frac{1}{3}$  per centum of the cost of construction of such project are available from the allotment to the State, and if the Surgeon General finds (A) that the application contains such reasonable assurance as to title, financial support, and payment of prevailing rates of wages, (B) that the plans and specifications are in accord with the regulations prescribed pursuant to section 622, (C) that the application is in conformity with the State plan approved under section 623 and contains an assurance that the applicant will conform to the applicable requirements of the State plan and of the regulations prescribed pursuant to section 622 (f) regarding the provision of facilities without discrimination on account of race, creed, or color, and for furnishing needed hospital facilities for persons unable to pay therefor, and an assurance that the applicant will conform to State standards for operation and maintenance, (D) that it has been approved and recommended by the State agency and is entitled

Insert, Page 13-A

Replace Section 623 (d) with:

(d) If any State, prior to July 1, 1948, has not enacted legislation providing that compliance with minimum standards of maintenance and operation shall be required, prior to that date (or, at the option of the State, required within such time after enactment of the legislation as the Surgeon General finds reasonable) in the case of hospitals which shall have received Federal aid under this title, such State shall not be entitled to any further allotments under Section 624 until such time as such State has enacted such legislation. Upon enactment of such legislation after July 1, 1948, the prohibition in this subsection against further allotments to such State under this part shall no longer be effective and such State shall, subject to the other requirements of this part, be entitled to allotments under Section 624 for the fiscal year in which such legislation is enacted and for the preceding fiscal year.

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Insert, Page 14-A

Replace first sentence in Section 624 with:

"Each State for which a State plan has been approved prior to or during a fiscal year shall be entitled for such year to an allotment of a sum bearing the same ratio to the sums authorized to be appropriated pursuant to Section 621 for such year as the product of (a) the population of such State and (b) the square of its allotment percentage (as defined in Section 631 (a)) bears to the sum of the corresponding products for all of the States: Provided, that no such allotment to any State shall be less than \$100,000.00. But for the purposes of this proviso the term "State" shall not include the Virgin Islands."

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to priority over other projects within the State in accordance with the regulations prescribed pursuant to section 622 (d). No application shall be disapproved until the Surgeon General has afforded the State agency an opportunity for a hearing.

"(b) Upon approving an application under this section, the Surgeon General shall certify to the Secretary of the Treasury an amount equal to  $33\frac{1}{3}$  per centum of the estimated cost of construction of the project and designate the appropriation from which it is to be paid. Such certification shall provide for payment to the State, except that if the State is not authorized by law to make payments to the applicant the certification shall provide for payment direct to the applicant. Upon certification by the State agency, based upon inspection by it, that work has been performed upon a project, or purchases have been made, in accordance with the approved plans and specifications, and that payment of an installment is due to the applicant, the Surgeon General shall certify such installment for payment by the Secretary of the Treasury; except that if the Surgeon General, after investigation or otherwise, has ground to believe that a default has occurred requiring action pursuant to section 632 (a) he may, upon giving notice of hearing pursuant to such subsection, withhold certification pending action based on such hearing.

"(c) Amendment of any approved application shall be subject to approval in the same manner as an original application. Certification under subsection (b) may be amended, either upon approval of an amendment of the application or upon revision of the estimated cost of a project. An amended certification may direct that any additional payment be made from the applicable allotment for the fiscal year in which such amended certification is made.

"(d) The funds paid under this section for the construction of an approved project shall be used solely for carrying out such project as so approved.

"(e) If any hospital for which funds have been paid under this section shall, at any time within twenty years after the completion of construction, (A) be sold or transferred to any person, agency, or organization, (1) which is not qualified to file an application under this section, or (2) which is not approved as a transferee by the State agency designated pursuant to section 623 (a) (1), or its successor, or (B) cease to be a nonprofit hospital as defined in section 631 (g), the United States shall be entitled to recover from either the transferor or the transferee (or, in the case of a hospital which has ceased to be a nonprofit hospital, from the owners thereof)  $33\frac{1}{3}$  per centum of the then value of such hospital, as determined by agreement of the parties or by action brought in the district court of the United States for the district in which such hospital is situated.



## "PART D--MISCELLANEOUS

### "DEFINITIONS

"Sec. 631. For the purposes of this title--

"(a) the allotment percentage for any State shall be 100 per centum less that percentage which bears the same ratio to 50 per centum as the per capita income of such State bears to the per capita income of the continental United States (excluding Alaska), except that (1) the allotment percentage shall in no case be more than 75 per centum or less than 33 1/3 per centum, and (2) the allotment percentage for Alaska and Hawaii shall be 50 per centum each, and the allotment percentage for Puerto Rico shall be 75 per centum;

"(b) the allotment percentages shall be promulgated by the Surgeon General between July 1 and August 31 of each even-numbered year on the basis of the average of the per capita incomes of the States and of the continental United States for the three most recent consecutive years for which satisfactory data are available from the Department of Commerce. Such promulgation shall be conclusive for each of the two fiscal years in the period beginning July 1 next succeeding such promulgation: Provided, That the Surgeon General shall promulgate such percentages as soon as possible after the enactment of this title, which promulgation shall be conclusive for the fiscal year ending June 30, 1947;

"(c) the population of the several States shall be determined on the basis of the latest figures certified by the Department of Commerce;

"(d) the term 'State' includes Alaska, Hawaii, Puerto Rico, and the District of Columbia;

"(e) the term 'hospital' (except as used in section 622 (a) and (b) ) includes public health centers and general, tuberculosis, mental, chronic disease, and other types of hospitals, and related facilities, such as laboratories, outpatient departments, nurses' home and training facilities and central service facilities operated in connection with hospitals, but does not include any hospital furnishing primarily domiciliary care;

"(f) the term 'public health center' means a publicly owned facility for the provision of public health services, including related facilities such as laboratories, clinics, and administrative offices operated in connection with public health centers;

"(g) the term 'nonprofit hospital' means any hospital owned and operated by a corporation or association, no part of the net earnings of which inures, or may lawfully inure to the benefit of any private shareholder or individual;

"(h) the term 'construction' includes construction of new buildings, expansion, remodeling, and alteration of existing buildings, and initial equipment of any such buildings; including architects' fees, but excluding the cost of off-site improvements and, except with respect to public health centers, the cost of the acquisition of land; and

Insert, Page 16-A

Section 631 (a) insert after "Puerto Rico" the following: "and the Virgin Islands."

HR-5889-1948

Section 631 (d) replace with:

"(d) The term "State" includes Alaska, Hawaii, Puerto Rico, the Virgin Islands, and the District of Columbia."

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"(1) the term 'cost of construction' means the amount found by the Surgeon General to be necessary for the construction of a project.

#### "WITHHOLDING OF CERTIFICATION

"Sec. 632 (a) Whenever the Surgeon General, after reasonable notice and opportunity for hearing to the State agency designated in accordance with section 612 (a) (1), finds that the State agency is not complying substantially with the provisions required by section 612 (a) to be contained in its application for funds under part B, or after reasonable notice and opportunity for hearing to the State agency designated in accordance with section 623 (a) (1) finds (1) that the State agency is not complying substantially with the provisions required by section 623 (a), or by regulations prescribed pursuant to section 622, to be contained in its plan submitted under section 623 (a), or (2) that any funds have been diverted from the purposes for which they have been allotted or paid, or (3) that any assurance given in an application filed under section 625 is not being or cannot be carried out, or (4) that there is a substantial failure to carry out plans and specifications approved by the Surgeon General under section 625, the Surgeon General may forthwith notify the Secretary of the Treasury and the State agency that no further certification will be made under part B or part C, as the case may be, or that no further certification will be made for any project or projects designated by the Surgeon General as being affected by the default, as the Surgeon General may determine to be appropriate under the circumstances; and, except with regard to any project for which the application has already been approved and which is not directly affected by such default, he may withhold further certifications until there is no longer any failure to comply, or, if compliance is impossible, until the State repays or arranges for the repayment of Federal moneys which have been diverted or improperly expended.

"(b) (1) If the Surgeon General refuses to approve any application under section 625, the State agency through which the application was submitted, or if any State is dissatisfied with the Surgeon General's action under subsection (a) of this section, such State may appeal to the United States circuit court of appeals for the circuit in which such State is located. The summons and notice of appeal may be served at any place in the United States. The Surgeon General shall forthwith certify and file in the court the transcript of the proceedings and the record on which he based his action.

"(2) The findings of fact by the Surgeon General, unless substantially contrary to the weight of the evidence, shall be conclusive; but the court, for good cause shown, may remand the case to the Surgeon General to take further evidence, and the Surgeon General may thereupon make new or modified findings of fact and may modify his previous action, and shall certify to the court the transcript and record of the further proceedings. Such new or modified findings of fact shall likewise be conclusive unless substantially contrary to the weight of the evidence.

"(3) The court shall have jurisdiction to affirm the action of the Surgeon General or to set it aside, in whole or in part. The judgment of the court shall be subject to review by the Supreme Court of the United States upon certiorari or certification as provided in sections 239 and 240 of the Judicial Code as amended.



## "FEDERAL HOSPITAL COUNCIL: ADMINISTRATION OF TITLE

"Sec. 633. (a) The Surgeon General is authorized to make such administrative regulations and perform such other functions as he finds necessary to carry out the provisions of this title. Any such regulations shall be subject to the approval of the Administrator.'

"(b) In administering this title, the Surgeon General shall consult with a Federal Hospital Council consisting of the Surgeon General, who shall serve as Chairman ex officio, and eight members appointed by the Administrator. Four of the eight appointed members shall be persons who are outstanding in fields pertaining to hospital and health activities, three of whom shall be authorities in matters relating to the operation of hospitals, and the other four members shall be appointed to represent the consumers of hospital services and shall be persons familiar with the need for hospital services in urban or rural areas. Each appointed member shall hold office for a term of four years, except that any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and the terms of office of the members first taking office shall expire, as designated by the Administrator at the time of appointment, two at the end of the first year, two at the end of the second year, two at the end of the third year, and two at the end of the fourth year after the date of appointment. An appointed member shall not be eligible to serve continuously for more than two terms but shall be eligible for reappointment if he has not served immediately preceding his reappointment. The Council is authorized to appoint such special advisory and technical committees as may be useful in carrying out its functions. Appointed Council members and members of advisory or technical committees, while serving on business of the Council, shall receive compensation at rates fixed by the Administrator, but not exceeding \$25 per day, and shall also be entitled to receive an allowance for actual and necessary travel and subsistence expenses while so serving away from their places of residence. The Council shall meet as frequently as the Surgeon General deems necessary, but not less than once each year. Upon request by three or more members, it shall be the duty of the Surgeon General to call a meeting of the Council.

"(c) In administering the provisions of this title, the Surgeon General, with the approval of the Administrator, is authorized to utilize the services and facilities of any executive department in accordance with an agreement with the head thereof. Payment for such services and facilities shall be made in advance or by way of reimbursement, as may be agreed upon between the Administrator and the head of the executive department furnishing them.

## "CONFERENCES OF STATE AGENCIES

"Sec. 634. Whenever in his opinion the purposes of this title would be promoted by a conference, the Surgeon General may invite representatives of as many State agencies, designated in accordance with section 612 (a) (1) or section 623 (a) (1), to confer as he deems necessary or proper. Upon the application of five or more of such State agencies, it shall be the duty of the Surgeon General to call a conference of representatives of all State agencies joining in the request. A conference of the representatives of all such State agencies shall be called annually by the Surgeon General.

## "STATE CONTROL OF OPERATIONS"

"Sec. 635. Except as otherwise specifically provided, nothing in this title shall be construed as conferring on any Federal officer or employee the right to exercise any supervision or control over the administration, personnel, maintenance, or operation of any hospital with respect to which any funds have been or may be expended under this title."

Sec. 3. Paragraph (2) of section 208 (b) of the Public Health Service Act, as amended, is amended by inserting "(A)" before the words "to assist"; by striking out the word "paragraph" and inserting in lieu thereof the word "clause"; and by striking out the period at the end of such paragraph and inserting in lieu thereof a comma and the following: "and (B) to assist in carrying out the purposes of title VI of this Act, but not more than twenty such officers appointed pursuant to this clause shall hold office at the same time."

Sec. 4. Section 1 of the Public Health Service Act is amended to read:

"Section 1. Titles I to VI, inclusive, of this Act may be cited as the 'Public Health Service Act'."

Sec. 5. The Act of July 1, 1944 (58 Stat. 682), is hereby further amended by changing the number of title VI to title VII and by changing the numbers of sections 601 to 612, inclusive, and references thereto, to sections 701 to 712, respectively.

Approved August 13, 1946



QUESTION AND ANSWER SUMMARY COVERING  
THE HOSPITAL SURVEY AND CONSTRUCTION ACT

How did the Act have its beginning? And why?

Public concern stimulated by a shortage of hospital beds and medical service throughout the nation.

The high incidence of physical defects among draft selectees.

What was the first step? By whom?

1942 Michigan Hospital Association Committee for Michigan Study

1942 American Hospital Association for a nation-wide study

Funds from: Kellogg Foundation

Commonwealth Fund

National Foundation for Infantile Paralysis

Michigan was to be the first or pilot study

Who would conduct this national study?

National Commission on Hospital Care appointed by American Hospital Association's Committee on Post War Planning.

What were the objectives of this national study?

1. Inventory or census of hospitals and health centers.
2. Appraisal of their capacity for service.
3. Establishment of standards for hospital construction and operation.
4. Determination of need for additional beds, centers and services.
5. Formulation of a national state-wide plan to provide for all the people.

What would the National Commission on Hospital Care do?

1. Farm it out to each state to arouse local interest and study.
2. Send technical consultants to states.
3. Publish detailed plans for state study.
4. Furnish questionnaires for inventory of each hospital and health center.
5. Furnish basic data for development of a state hospital plan.
6. Provide information concerning federal hospital service grants.
7. Tabulate population, economic and other data.

What did the National Commission actually do?

1. Conducted the pilot study in Michigan.
2. Supplied questionnaires of "schedules" of information to all states.
3. Formulated elaborate detailed plan for survey and planning which later became part of the act, to be described later.

Why did the National Commission and the states not finish the survey and planning?

The need for funds became apparent.

How was the need for federal help satisfied?

A bill, S-191, was introduced in the Senate on January 10, 1945 by Senator Hill, Democrat, Alabama, and Senator Burton, Republican, Ohio. Supported by:

American Hospital Association  
Catholic Hospital Association  
Protestant Hospital Association  
American Medical Association  
American College of Surgeons  
Labor Groups  
Civic Organizations, many and varied

What was the progress of Senate Bill 191?

Sailed through the various committees and was passed by the Senate. Introduced to House of Representative December 12, 1945. Emerged as P. L. 725, 79th Congress, and signed by the President on August 13, 1945, known as the "Hospital Survey & Construction Act." It became Title VI of the Public Health Service Act.

What are the purposes of the Act?

Provide federal assistance to states for the provision to all their people of "the necessary facilities for adequate hospital, clinic, and similar services," by federal grants to each state to:

1. Survey existing facilities.
2. Determine hospital and health center needs.
3. Develop a state program for the construction of needed facilities.
4. Construct the necessary facilities.

What facilities may be constructed?

Hospitals: General, tuberculosis, mental, chronic disease, maternity, special (not homes for aged or feeble minded).  
Ownership: Government and other non-profit hospitals.

Public Health Centers: Publicly owned and conducted by state or local public health units or organizations.

Related facilities: Laboratories, out-patient departments, nurses' homes and teaching facilities, central service facilities; for public health centers, laboratories, clinics, offices, etc.



What is included in construction?

New buildings.

Expansion, remodeling and alteration of existing buildings, including architect's fees.

What is excluded in construction?

Off-site improvements.

Acquisition of land sites (except for public health centers).

How is the act administered on the federal level?

It is the responsibility of the Surgeon General, U.S.P.H.S., in the Federal Security Agency, with advice and assistance of Federal Hospital Council.

Council:

Surgeon General - Chairman

8 members - (4 hospital and health experts

( 3 expert hospital administrators)

(4 consumers of hospital service

Council also must approve the Surgeon General's U.S.P.H.S. regulations and must act on appeals from states if the Surgeon General disapproves a state plan. The council's decision is final.

The Council's other functions are advisory and consultatory.

What is the allotment, federal, for survey and planning needs?

\$3,000,000 for all states.

\$10,000 for the Territory of Hawaii.

Available until exhausted.

What must the state do to receive the federal grant for survey and planning?

1. Designate a "sole" agency to conduct the survey and planning.
2. Provide a state "advisory council."
3. Provide authority for the sole agency to make the inventory and survey and to develop a construction program.
4. Provide matching funds for the survey and planning at the rate of 2 to 1.

What is the allotment, federal, for construction purposes?

\$75,000,000 each year for 5 years beginning July 1, 1946 or a total of

\$375,000,000 for all the states.

\$223,000 each year for 5 years or a total of \$1,115,000 for the Territory of Hawaii.

Matching funds for construction, two to one, must be furnished by each project, government or privately owned.

How does the U.S.P.H.S. approve the expenditure of federal funds?

By the application of its regulations promulgated on or before February 13, 1947 (the regulations approved by the Federal Hospital Council have been issued), which are concerned mainly with the number and general distribution of hospital beds and health centers, with minimum standards for construction, and with the availability of matching funds, two for one.

How are beds to be distributed?

By ratio-standards as follows:

Overall for a state -  $4\frac{1}{2}$  per 1,000 population

For general hospital beds (which include maternity, children's orthopedic, isolation, EENT, and other specialty beds)

Overall for the Territory of Hawaii -  $4\frac{1}{2}$  per 1,000 population

For a Base Area -  $4\frac{1}{2}$  " " "

For an Intermediate Area - 4 " " "

For a Rural Area -  $2\frac{1}{2}$  " " "

Definition

**Base Area:**

Any area which is so designated by the State Agency and has the following characteristics: (1) Irrespective of the population of the area, it shall contain a teaching hospital of a medical school; this hospital must be suitable for use as a base hospital in a coordinated hospital system within the State; or (2) the area has a total population of at least 100,000 and contains or will contain on completion of the hospital construction program under the State plan at least one general hospital which has a complement of 200 or more beds for general use. This hospital must furnish internships and residencies in two or more specialties and must be suitable for use as a base hospital in a coordinated hospital system within the State.

**Intermediate Area:**

A logical hospital service area which has a total population of at least 25,000 and contains or will contain, on completion of the hospital construction program, at least one general hospital which has a complement of 100 or more beds, and which would be suitable for use as a district hospital in a coordinated hospital program within the State.



**Rural Area:**

Any area so designated which constitutes a unit, no part of which has been included in a base or intermediate area.

For tuberculosis hospital beds

2½ times the number of average T.B. deaths over a recent 5-year period (1940 to 1944)

For mental hospital beds

5 per 1,000 population

For chronic & convalescent hospital beds

2 per 1,000 population

How are public health centers to be distributed?

The limitation is 1 per 30,000 population.

Definition

**Public Health Center:**

A publicly owned facility utilized by a local health unit for the provision of public health services, including related facilities such as laboratories, clinics and administrative offices, in connection with public health centers.

How are priorities for construction in a state decided?

The state agency must decide, based on relative needs of different areas and their populations for adequate facilities (hospitals, beds and centers) with special emphasis on rural needs.

How is the type of construction approved?

According to the U.S.P.H.S. regulations for minimum standards for new construction.

What about discrimination on account of race, creed, color and indigency of patients?

Applicants for construction must give assurance that all persons residing in an area will be served by the facility without such discrimination.

What must the "sole" stage agency do to obtain federal funds for construction?

It must, with its survey of existing facilities and needs, submit a state plan which will show:

1. The designation, legally, of a single state agency to supervise the construction program.

2. That it has the necessary legal authority of the state to carry out the plan.
3. That an advisory council has been provided by the state.
4. Set forth in detail a hospital construction program for the state, based on inventory and need.
5. Set forth the priorities in order of relative needs.
6. Provide administrative methods including personnel standards on a merit basis.
7. Assure minimum standards for maintenance and operation of hospitals to be constructed with federal aid. The state must, prior to July 1, 1948, enact legislation establishing such minimum standards or the state will be deprived of federal aid.
8. Provide for hearings for applicants for a construction project before the state agency if the project is disapproved by the state agency.
9. Submit such reports and information as may be required by the U.S.P.H.S.
10. The Surgeon General must approve any state plan which complies with the above conditions. If he does not, the Federal Hospital Council must give the state agency a hearing and its decision is final.

Who may initiate a construction project?

A state, county or any political subdivision.

A non-profit public or private agency which conducts or will conduct and operate the facility.

How may a construction project be initiated?

By submitting an application through the state agency to the U.S.P.H.S.

What must the application show?

1. A description of the site and assurance of its title.
2. Plans and specifications complying with federal regulations.
3. Reasonable assurance of adequate local financial support, both for construction and maintenance and operation of the facility when completed.
4. Reasonable assurance of the payment of prevailing wages for construction work.
5. Availability of matching construction funds 2 for 1.

Who approves the construction project applications?

First, the state agency (its architects, its engineers, its administrative director)

Next, the U.S.P.H.S. in Washington



### How are payments of federal funds made:

To the state agency for transmission to the applicant; here the funds would be paid through the Territorial Treasury. If legally unable to make payments through the state agency, direct to the applicant.

When: 3 stages: 1st installment when not less than 25 percent of the work of construction of the building has been completed.

2nd installment when the mechanical work has been substantially roughed in.

3rd installment when the work under the construction contract has been completed and final inspection made.

### What has been done so far under P. L. 725?

#### Federal Level

The U.S.P.H.S., Bureau of States, created a Division of Hospital Facilities to administer the Act.

A Federal Hospital Council has been appointed.

An advisory committee has been named.

The U.S.P.H.S. works through its districts; the Territory of Hawaii is in District No. 5 at San Francisco which includes California, Arizona, Washington, Oregon, Nevada.

The U.S.P.H.S. has disseminated information for survey, planning and construction with regulations pertaining thereto.

The appropriations committee of the House of Representatives, instead of appropriating the \$75,000,000 authorized by P. L. 725, or the \$50,000,000 recommended in the President's Budget for the fiscal year ending June 30, 1948, authorized the Surgeon General, United States Public Health Service, to approve construction projects up to the full amount authorized in the original bill, making such approvals a contractual obligation of the federal government. Funds to pay these obligations would be made available in deficiency appropriations requested at frequent intervals by the Surgeon General and approved by Congress from time to time. Under the latter proposal, funds will not be available until January 1, 1948 or perhaps even July 1, 1948. On the other hand, under the President's budget recommendation, project approvals would have been limited to \$50,000,000 instead of the full amount authorized by the act, \$75,000,000. Now, the Surgeon General may approve projects up to the total amount authorized by P. L. 725 for the two fiscal years in question, 1946-1948, a total of \$150,000,000. This recommendation by the Appropriations Committee was enacted by both houses of Congress.

### Territorial Level

What the Territory has done, so far, under P. L. 725 is embodied in the Report of Survey and Planning which follows.





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## Chapter I

### INTRODUCTION

On September 23, 1946, the Governor of the Territory of Hawaii, by Executive Order, designated the Board of Health of the Territory of Hawaii to carry out the purposes of Section 601 (a) of P. L. 725, to make inventory of all hospitals in the Territory of Hawaii, to develop a construction program under Section 622 of P. L. 725, to make reports to the Surgeon General, United States Public Health Service, to consult with the Territorial Advisory Council, and to expend federal funds for the purposes of P. L. 725, and he authorized the Treasurer of the Territory of Hawaii to receive such federal funds.

On December 30, 1946, the Governor allotted Territorial matching funds in the amount of \$5,280 from the appropriation, Governor's Contingent Fund of the General Fund, to administer the P. L. 725 in the Territory for the six months' period from January 2, 1947 to June 30, 1947.

On January 14, 1947, the Governor issued a letter of appointment, designating the Territorial Advisory Council to consult with and advise the Board of Health in the administration of P. L. 725. Included in the Territorial Advisory Hospital Council were the names of five members of the Territorial Hospital Service Study Commission; the latter had been appointed by the Governor, pursuant to Joint Resolution 12, Laws of the Territory of Hawaii, Regular Session of 1945, approved May 22, 1945, to "make a comprehensive study of hospital.....services and costs in the Territory of Hawaii," for a report to the Territorial Legislature at its biennial session in March and April, 1947.

The Territory of Hawaii Board of Health set up a Bureau of Medical Services and the first division within that bureau was known as the Division of Hospital Survey and Construction; these later were abbreviated into the Division of Hospital Planning and began to function on January 3, 1947, to administer the activities of the Territory of Hawaii under P. L. 725.

The Hospital Service Study Commission, to which reference is made above, being cognizant of the hospital inventory which was in progress throughout the United States, and which had been initiated by a special group of the American Hospital Association known as the Commission on Hospital Care, recognized the usefulness of the methods and material used by the latter and adopted them for its own study in the Territory. The adoption of these methods was a wise move and one of keen foresight because the Commission on Hospital Care's methods were the ones to be adopted by the United States Public Health Service as suitable for use in the nation-wide survey under P. L. 725. The Hospital Service Study Commission was fully aware, also, that the methods and material utilized by the Commission on Hospital Care would produce the data relating to hospital needs in the Territory of Hawaii, which would satisfy the requirements of a survey.

The Hospital Service Study Commission, having only a limited purpose and tenure, under the mandates of Joint Resolution 12, Laws of the Territory of Hawaii, Regular Session of 1945, recommended to the Governor of Hawaii that, upon the completion of its inventory stage, an agency be designated as the official administrative-fiscal agency to conduct what further survey work might be indicated to



complete the survey and the development of a Territorial plan for hospital construction under P. L. 725. With the writing of its report, which covered the collection of data from the hospitals and the tabulation and analysis of the data, the Commission considered its survey completed and turned over to the Territorial Board of Health, for use in the succeeding program, all the data at hand; this was done on March 20, 1947.

## Scope and Method of Study

### Type of Hospitals

The Hospital Service Study Commission's survey included every hospital, nursing home and institution in the Territory of whatever type and ownership (except federal-owned hospitals of the Army and Navy) that provide overnight hospital and nursing services. Institutions which provide strictly domiciliary care, such as homes for children and old people, and in which care is restricted to housing and board with no nursing service, were not included.

Thus were surveyed general hospitals, maternity hospitals and homes, children's and orthopedic hospitals, convalescent and chronic hospitals and homes, tuberculosis hospitals, nervous and mental hospitals and leprosy hospitals.

### Size of Hospitals

The survey covered hospitals ranging in size from 4 to 1,150 complement beds.

### Ownership of Hospitals

The survey covered hospitals of all types of ownership: individually owned, corporation owned (which in all cases means plantation owned), non-profit and government owned, by county and Territory. At the outset, there was some protest against recognizing within the scope of the survey some of the small 4, 6 and 8 bed hospitals which are mostly under individual proprietorship, but the procedure set up nationally emphasized the need for the location and inventory of this class of service, for these hospitals provide a sizable amount of service in some areas and present distinctive problems.

### Period covered

The survey covers data for the year 1945, or for the fiscal year 1945-46 for those institutions which keep their records on a basis other than the calendar year.

### Schedules of Information

The collection of data was accomplished with the aid of two types of Hospital Schedules of Information (issued by the Commission on Hospital Care).

Type 1. A 40-page schedule of information for hospitals known to have 25 or more beds. It requested data including the following:

General: Name, location, establishment, ownership or control, type, accreditations, approvals, memberships, management, auxiliary organizations.

Areas Served: Map of area served, restrictions of service, geographic distribution of patients.

Physical Plant: Physical structure, bed complement, normal bed capacity, bed allotments, area distribution, living quarters, educational facilities.

Patient Service Data: Summary of service rendered, patient days, autopsies, services by pay status, type of service, newborn, percent occupancy, length of stay.

Medical Staff: Organization, type, appointment, meetings, membership, departments, qualifications.

Administration: Departmental functions; number, qualifications of personnel; departmental organization and extent of service.

Financial Data: Balance sheet--funds expended and available for land, building and equipment; operating and non-operating expenses; non-hospital service; expenditures from special purpose funds; recapitulation; analysis of operating expenses.

Educational Activities: Physicians, internes, residents, nurses, dietitians, laboratory and X-ray technicians, apprentice pharmacists, hospital personnel, public.

Research Activities: Funds, facilities, personnel, clinical investigation, publications.

Type 2. A 9-page schedule for hospitals of less than 25 beds, requesting practically the same data as was called for in the larger schedule, as was given above, with reference to area served, physical plant and patient data, but requiring only a minimum of data on departmental functions, personnel, administration and finance, in recognition of the simpler operating structure of hospitals of less than 25 beds.

Schedules of information were mailed to each hospital shown on the inventory of hospital facilities, Territory of Hawaii, 1946, (See Table 1) with the request that as much information as possible be filled in and that the schedule be held for a visit from the director of the survey. At that visit, the data were reviewed with the hospital superintendent or with the person assigned to the task and attempts were made to supply missing data from hospital records and replies to questions.



No resistance was encountered anywhere in filling out the schedules and, in many instances, the hospital administration put in many hours, with and without the survey director, in an effort to complete every detail, often using after-hour and holiday time for that purpose.

It has been assumed that the Division of Hospital Planning, Board of Health, would utilize, practically intact, the data of the Hospital Service Study Commission. This, however, turned out to be untrue. The Commission's report, a very admirable one, contained data which had been compiled before the United States Public Health Service issued its Regulations, and the Commission's data had to be revised almost entirely in order to comply with stipulations contained in the Regulations. These stipulations concerned population figures, area ratios, normal beds versus complement beds, acceptable beds and non-acceptable beds, and various other items affecting the survey and planning. The report of the Commission contained no data concerning health centers and no reference to a Territorial plan for supplying the Territory's needs in hospitals, beds and health centers.

## Chapter II

### GEOGRAPHICAL DATA - TERRITORY OF HAWAII

The entire Territory consists of the following islands: Hawaii, Maui, Molokai, Lanai, Kahoolawe, Kauai, Niihau, Oahu, Palmyra, French Frigate Shoals, and a few small rocky islands nearby. For our purposes, the only islands to be considered are Hawaii, Maui, Molokai, Lanai, Kauai and Oahu. Niihau is privately owned plantation property with a small population. Kahoolawe is a barren rock, though of some area and a population of one now and then.

The Territory is divided into counties as follows:

<u>Counties</u>	<u>Definition of Inclusions</u>
Hawaii	Hawaii Island and all the other islands within 3 nautical miles of the shores of Hawaii and waters adjacent thereto Seat: Hilo
Maui	Maui, Molokai, Lanai, Kahoolawe Islands and all the islands within 3 nautical miles of the shores thereof and the waters adjacent thereto, except that part of Molokai known as Kalaupapa, Kalawao and Waikolu (leper settlement) Seat: Wailuku
Kauai	Kauai and Niihau Islands and all the other islands lying within 3 nautical miles of the shores thereof, and the waters adjacent thereto Seat: Lihue
Honolulu City & County	Oahu Island and Palmyra Island and a few small, rocky islands nearby.
Kalawao	That portion of Molokai Island known as Kalaupapa, Kalawao and Waikolu (Leper settlement)

It will be seen that islands and counties coincide except that Maui County is comprised of Maui, Molokai, Lanai and Kahoolawe Islands and Kauai County is comprised of Kauai and Niihau Islands.

The relationship of the islands to one another can be seen on the map of the Territory, which will also explain why it is considered advisable to study the Territory's needs by islands rather than by counties. There is too much ocean between islands to permit grouping of two or more islands in a single hospital service area.

The dimensions and areas of each island are shown in Table 2, lines 1 and 2. Hawaii is the largest in area with 4,021 square miles and is a little smaller than the State of Connecticut. Maui is next with 728 square miles and Oahu, the most populated, is third with 603 square miles. The Territory, with 6,375 square miles, is somewhat larger than the State of Connecticut.



The Territory is further divided into districts known as "representative" districts for the purpose of representation in the Territorial House of Representatives. These are numbered from 1 to 6 and are as follows:

First District - That portion of the Island of Hawaii known as Puna, Hilo and Hamakua

Second District - That portion of the Island of Hawaii known as Kau, Kona and Kohala

Third District - The Islands of Maui, Lanai, Molokai and Kahoolawe

Fourth District - That portion of the Island of Oahu, lying East and South of Nuuanu Street, a line drawn in extension thereof from Nuuanu Pali to Mokapu Point

Fifth District - That portion of the Island of Oahu lying West and North of the Fourth District

Sixth District - The Islands of Kauai and Niihau

Each numbered or representative district is subdivided into smaller districts known as Judicial Districts; these have names such as Hamakua, North Hilo, Puna and South Hilo Districts in District 1; they are for purposes of elections, taxation, education, judiciary, city, county and similar functions. There are thirty such districts; the Island of Hawaii contains 9, Maui 4, Molokai 2, Lanai 1, Oahu 9 (recently one was split into 2), Kauai 5. (For boundaries, see maps entitled "Designation of Existing and Programmed Health Centers" Exhibit D-3.)

Each judicial district contains smaller areas named for their cities or towns or villages. The list of representative districts, judicial districts and the town or village areas are given below, showing populations according to the Bureau of the Census Report of 1940, the latest available for these subdivisions:

Population by Representative Districts  
and by  
Cities, Towns and Villages within Districts  
Territory of Hawaii, 1940

<u>Location</u>	<u>Population, 1940</u>
District No. 1	53,033
Hamakua	8,244
Honokaa	1,132
Kukuihaile	408
Waipio	216
North Hilo District	4,468
Laupahoehoe	534
Ninole	77
Ookala	735
Papaaloa	662

<u>Location</u>	<u>Population, 1940</u>
District No. 1 (Cont.)	
Puna District	7,733
Kalapana	211
Kapoho	483
Keaau (Olaa)	2,509
Mt. View	955
Pahoa	1,114
South Hilo District	32,588
Hakalau	1,138
Hilo	23,353
Honomu	868
Papaikou	1,566
Wailea	414
District No. 2	20,243
Kau District	5,581
Naalehu	1,038
Pahala	1,651
Waiohinu	214
North Kohala District	5,362
Hawi	1,194
Kapaau (Kohala)	1,255
Mahukona	147
Makapala	527
North Kona District	3,924
Holualo	541
Kailua	381
Kainaliu	490
Kealahkekua	177
South Kohala District	1,352
Kawaihae	123
Waimea (Kamuela)	445
South Kona District	4,024
Hookena	54
Kealahkekua	256
Kealia	195
Milolii	66
Napoopoo	103
District No. 3	55,980
Hana District	2,663
Hana	1,185
Keanae	106



<u>Location</u>	<u>Population, 1940</u>
District No. 3 (cont.)	
Kalawao District	446
Lahaina District	8,291
Honokahua	729
Lahaina	5,217
Puukolii	1,042
Lanai District	3,720
Lanai City	3,597
Makawao District	14,915
Haiku	431
Keokea	454
Kokomo	208
Lower Paia	1,235
Makawao	903
Paia	4,272
Pauwela	465
Waiakoa	695
Molokai District	4,894
Hoolehua	1,050
Kaunakakai	722
Kaulapuu	641
Maunaloa	979
Pukoo	52
Wailuku District	21,051
Kahului	2,193
Puunene	4,456
Spreckelsville	2,634
Waikapu	643
Wailuku	7,319
District No. 4	112,310
Honolulu	108,691
Koolaupoko	3,619
District No. 5	145,386
Ewa District	30,602
Aiea	3,553
Ewa	3,570
Pearl City	1,938
Waipahu	6,906

<u>Location</u>	<u>Population, 1940</u>
District No. 5 (cont.)	
Kookauloa District	4,968
Hauula	411
Kahuku	2,251
Laie	761
Wahiawa District	22,417
Wahiawa	5,420
Waialua District	8,397
Haleiwa	1,849
Waialua	2,512
Waianae District	2,948
Lualualei	371
Nanakuli	777
Waianae	1,078
Honolulu	70,667
Koolaupoko	5,387
District No. 6	35,818
Hanalei District	2,065
Hanalei	313
Kilauea	548
Kawaihau District	6,512
Anahola	367
Kapaa	2,828
Kealia	758
Koloa District	8,493
Eleele	1,184
Kalaheo	770
Koloa	1,903
Wahiawa Mill	771
Lihue District	7,896
Hanamaulu	1,337
Lihue	4,254
Puhi	886
Waimea District	10,852
Hanapepe	1,166
Kekaha	2,536
Makaweli	1,010
Waimea	1,921



## Chapter III

### POPULATION DATA, TERRITORY OF HAWAII

A variety of recent population tables are available as follows:

Estimates by the Bureau of Vital Statistics, Territorial Board of Health, October 28, 1946 for 1946, for islands, counties and two largest cities:

#### Civilian Population Territory of Hawaii - 1946

<u>Islands</u>		<u>Counties</u>		<u>Cities</u>	
Oahu	358,911	Honolulu	358,911	Honolulu	267,710
Hawaii	70,871	Hawaii	70,871	Hilo	27,922
Maui	44,807	Maui	54,225		
Molokai	6,173	Kauai	35,111		
Lanai	3,630	Kalawao	<u>385</u>		
Kauai	34,911				
Niihau	199		519,503		
Kahoolawe	<u>1</u>				
	519,503				

Estimates, Bureau of the Census, Department of Commerce, 1945, but figures are available for the entire Territory only, namely 415,379.

Population Reports, Bureau of the Census, Department of Commerce, 16th Census, 1940, for islands, counties and cities of 5,000 or more:

#### Civilian Population Territory of Hawaii - 1940

<u>Islands</u>		<u>Counties</u>		<u>Cities</u>	
Oahu	257,664	Honolulu	258,256	Hilo (Hawaii)	23,353
Hawaii	73,276	Hawaii	73,276	Honolulu (Oahu)	179,326
Maui	46,919	Maui	55,980	Lahaina (Maui)	5,217
Molokai	5,340	Kauai	35,818	Wahiawa (Oahu)	5,420
Lanai	3,720	Kalawao	<u>446</u>	Wailuku (Maui)	7,319
Kauai	35,636			Waipahu (Oahu)	6,906
Niihau	182		423,776		
Kahoolawe	<u>1</u>				
	422,738				

The Bureau of the Census Report for 1940 also shows populations by minor civil divisions, namely the representative districts, judicial districts and the contained towns and villages. These figures are given in the pages under Geographical Data.

## Substitute for Page 44

## Chapter III

## POPULATION DATA, TERRITORY OF HAWAII

A variety of recent population tables are available as follows:

Estimates by the Bureau of Vital Statistics, Territorial Board of Health, July 1, 1948, for 1948, for islands, counties and two largest cities:

Civilian Population  
Territory of Hawaii - 1948

<u>Islands</u>		<u>Counties</u>		<u>Cities</u>	
Oahu	371,649	Honolulu	371,650	Honolulu	277,129
Hawaii	74,870	Hawaii	74,870	Hilo	29,620
Maui	48,544	Maui	57,077		
Molokai	5,531	Kauai	36,692		
Lanai	3,413	Kalawao	411		
Kauai	36,493				
Niihau	199		540,700		
Kahoolawe	1				
	540,700				

Estimates, Bureau of the Census, Department of Commerce, 1945, but figures are available for the entire Territory only, namely 415,379.

Population Reports, Bureau of the Census, Department of Commerce, 16th Census, 1940, for islands, counties and cities of 5,000 or more:

Civilian Population  
Territory of Hawaii - 1940

<u>Islands</u>		<u>Counties</u>		<u>Cities</u>	
Oahu	257,664	Honolulu	258,256	Hilo (Hawaii)	23,353
Hawaii	73,276	Hawaii	73,276	Honolulu (Oahu)	179,326
Maui	46,919	Maui	55,980	Lahaina (Maui)	5,217
Molokai	5,340	Kauai	35,818	Wahiawa (Oahu)	5,420
Lanai	3,720	Kalawao	446	Wailuku (Maui)	7,319
Kauai	35,636			Waipahu (Oahu)	6,906
Niihau	182		423,776		
Kahoolawe	1				
	422,738				

The Bureau of the Census Report for 1940 also shows populations by minor civil divisions, namely the representative districts, judicial districts and the contained towns and villages. These figures are given in the pages under Geographical Data.





The 1948 Estimates by the Bureau of Vital Statistics, Board of Health, show an increase from 257,664 in 1940 to 371,649 in 1948 for the Island of Oahu, with negligible changes for the other islands. This increase of 113,985 on Oahu must be taken into account in the calculation of bed ratios and allowances; for this revision, the increase for the Island of Oahu of 12,738 from 358,911 in 1946 to 371,649 in 1948, must be considered.

The distribution of the population of the Territory of Hawaii in the Board of Health Estimates, 1948, by counties and cities, shows the City and County of Honolulu (which is all the Island of Oahu) to be the most populated with 371,649 (increase of 12,738); Hawaii County is next with 74,870 (increase of 3,999); Maui County next with 57,077 (increase of 2,852); Kauai County next with 36,692 (increase of 1,581); and Kalawao County (a political unit formed to provide the Kalaupapa Leper Settlement with its own governmental set-up) the smallest with 411 (increase of 26). Of the two sizable cities in the Territory, Honolulu is the larger with 277,129 (increase of 9,419) and Hilo is next with 29,620 (increase of 1698).

The distribution of the population in 1948 by islands does not exactly parallel that of the population by counties because Maui County embraces the Islands of Maui, Lanai and Molokai. The distribution by islands indicates that Oahu Island (City and County of Honolulu) has the greatest with 371,649 (increase of 12,738); Hawaii Island next with 74,870 (increase of 3,999); Maui Island next with 48,544 (increase of 2,737); Kauai Island next with 36,493 (increase of 1582); Molokai Island (including Kalawao County) next with 5,531 (decrease of 642); Lanai Island next with 3,413 (decrease of 217). The population of the other islands is too small for consideration here (Niihau 199 and Kahoolawe 1).

The density of the population in 1948 in each island and each county, with exception of the lesser islands, remains well above 12 per square mile.

The 1940 figures by the Bureau of the Census, Department of Commerce, will be the ones on which we will have to calculate our allowance of beds and bed ratios for all islands except Oahu. In the latter, we must accept the 1948 figures by the Bureau of Vital Statistics, Board of Health, or accept a loss of approximately 114,000 for bed allowances and ratios, and this has been authorized by a representative of the Hospital Facilities Office, United States Public Health Service, Washington, D. C. (It must be remembered that the Estimates by the Bureau of the Census for 1943 - 1945 are for the entire Territory only and are not broken down by islands.) The 1940 figures place Oahu first with 257,664, Hawaii next with 73,276, Maui next with 46,919, Kauai next with 35,636, Molokai next with 5,340, Lanai next with 3,720.

The population figures by islands and for the Territory which will be the basis of calculations and ratios, therefore will be:

Oahu, 1948 Bur. of V. S., Board of Health Est.	371,649
Hawaii, 1940 Bureau of the Census Report	73,276
Maui, " " " " " "	46,919
Kauai, " " " " " "	35,636
Molokai, " " " " " "	5,340
Lanai, " " " " " "	3,720
Niihau " " " " " "	182

Territory of Hawaii

536,722



The populations by race for the Territory of Hawaii in 1948 are of interest in connection with the consideration of discrimination and segregation. It may be stated here that there are no evidences of discrimination or segregation anywhere in the Territory. Hotels, restaurants, theaters, hospitals, public conveyances, etc., admit all races without discrimination and without changes in rates. There are no evidences of so-called "Jim Crow" methods. The Caucasians outnumber the Japanese by a slim margin, 172,967 to 171,983. Next are the part-Hawaiians with 67,082, the Filipinos with 54,327 and the Chinese with 30,279. Puerto Ricans, mostly non-Caucasians, were 9,548 and Koreans 7,216. The figures are given below:

Population by Race  
Territory of Hawaii, 1940, 1946, 1948

Race	1940	1946	1948
Hawaiian	14,375	10,887	10,650
Part-Hawaiian	49,935	64,161	70,110
Puerto-Rican	1/	9,298	9,820
Caucasian	103,791	173,533	180,480
Chinese	28,774	30,286	30,530
Japanese	157,905	168,463	176,280
Korean	1/	7,092	7,320
Filipino	52,569	54,519	53,640
All others	15,981	1,264	1,670
Total Territory	423,330	519,503	540,500

1/ Not classified

Source: 1940 Bureau of Census; 1946 and 1948 Board of Health Estimates

Race	Total	County of Hawaii	City & County of Honolulu	County of Maui	County of Kauai
Total, all races	423,330	73,276	258,256	37,876	53,922
Hawaiian	14,375	3,451	7,090	2,946	888
Part-Hawaiian	49,935	7,901	31,453	2,666	7,915
Caucasian	103,791	9,821	82,516	4,465	6,989
Chinese	28,774	1,832	24,567	862	1,513
Filipino	52,569	12,845	19,066	10,149	10,509
Japanese	157,905	34,865	83,387	15,470	24,183
All others	15,981	2,561	10,177	1,318	1,925

Source: Bureau of Census Report 1940

## Chapter IV

### INVENTORY OF PHYSICIANS, NURSES AND OTHER HOSPITAL PERSONNEL

Hospital beds without physicians are no asset in an overall plan to provide adequate medical attention. While it may be stated that physicians will congregate where there are hospitals, wealth and population, it is of importance to know in advance that an adequate number of physicians of the proper calibre will be available to staff the hospitals. While there are no precise standards of physician-adequacy, in the pre-war United States, the ratio of physicians to population was approximately 1 to 1,000 and included general practitioners and specialists--for general practitioners, the ratio approximated 1 per 1,300. The ratio varied widely in selected areas, being 1 to 800 in the middle Atlantic, mountain and Pacific areas; 1 to 1,300 in the West South central area and 1 to 1,500 in the East South central area. Wealth of the people and concentration of physicians go hand in hand, and in New York the ratio was 1 to 600, in California 1 to 700, in Alabama the ratio was 1 to 1,700 and in Mississippi 1 to 1,800.

In 1940, the physicians in the Territory numbered 336, with a ratio of 1 per 1,258 population and with a distribution by islands as shown on Table 2, lines 95 and 96.

Though the ratios indicate general deficiency in numbers of physicians, the distribution by islands is not too uneven; as may be expected, a concentration of physicians and of specialists occurs on Oahu and in Honolulu. The ratio of 1 physician to 1,258 population for the Territory placed the latter 43rd in the rank of the states and territories. Those exceeding Hawaii in number of population for physician were Idaho, South Dakota, North Carolina, South Carolina, Alabama and Mississippi.

For 1946, the Territorial ratio lengthened to 1 physician to 1,472 population. Since July, 1946, 34 physicians have obtained licenses to practice in the Territory, changing the ratio to 1 physician to 1,342 population. The breakdown by islands for 1946 is shown in Table 2, line 97. This ratio stigmatized Hawaii as a "poor state," yet the economic level of the Territory is not below that of the average mainland state. Preliminary estimates indicate a per capita income payment for 1945 of \$1,121, which places Hawaii 20th in the rank of the states and the territories and regionally closest to the central states' level.

There are other factors which tend to keep the number of physicians licensed to practice in the Territory low. Two of these are the absence of a medical school in Hawaii and the requirements such as one year's residence in the Territory for eligibility to qualify for license. Another is the distance and expense of travel from the mainland to the place of examination, which is Honolulu.

It should be recognized that, in the rural areas, the population clusters around the plantation mill town and is rarely widely dispersed as in the rural areas of the mainland states. For many years, a highly developed system of plantation hospitals and out-patient dispensaries has been serving the plantation and



non-plantation population alike, affording very effectively such convenience as to make possible a larger quantity of medical service per physician than is ordinarily achieved by physicians in private practice.

The ratio of population to physicians in active practice in the Territory of Hawaii by islands, 1946, is shown in Table 2, line 98.

The number of licensed physicians by type of practice in the Territory of Hawaii, 1946, is shown for each island in Table 2, lines 99 to 104. As indicated before, the distribution by islands is not too uneven but the Island of Lanai and the Island of Molokai, both in Maui County, are under-manned by physicians.

The number of licensed physicians, by specialty, in the Territory of Hawaii, 1946, is shown for each island in Table 2, lines 104 to 119. It is evident that the specialists are concentrated in Honolulu--it is not too much to believe that adequate hospital facilities on the other islands will attract more specialists to those islands; similarly they will attract more general practitioners; the wealth and the population are to some extent already there.

If the number of physicians licensed since July 1, 1946, namely 34, can be equalled or exceeded each year, it is safe to assume that the supply of physicians will increase rather than diminish.

The number and concentration of dentists in the Territory of Hawaii by islands is shown in Table 2, lines 120 and 121.

The number of nurses in the Territory of Hawaii by islands is shown in Table 2, lines 122 to 129.

The number of technicians in the Territory of Hawaii by islands is shown in Table 2, lines 130 to 133.

## Chapter IV

### INVENTORY OF PHYSICIANS, NURSES AND OTHER HOSPITAL PERSONNEL

In 1948, the physicians in the Territory numbered 403 with a ratio of 1 per 1,341 population and with a distribution by islands as shown in Table 2, items 97 and 98.

Though the ratios indicate a general deficiency in numbers of physicians, the distribution by islands is not too uneven; as may be expected, a concentration of physicians and of specialists occurs on Oahu and in Honolulu.

#### Insert, Page 48-A

The ratio of population to physicians in active practice in the Territory of Hawaii by islands, 1948, is shown in Table 2, item 98.

The number of licensed physicians by type of practice in the Territory of Hawaii, 1948, is shown for each island in Table 2, items 99 to 103.

The number of licensed physicians, by specialty, in the Territory of Hawaii, 1948, is shown for each island in Table 2, items 104 to 119. It is evident that the specialists are concentrated in Honolulu. It is not too much to believe that adequate hospital facilities on the other islands will attract more specialists to those islands. Similarly they will attract more general practitioners.

The number and concentration of dentists in the Territory of Hawaii by islands is shown in Table 2, items 120 to 121.

The number of nurses in the Territory of Hawaii by islands is shown in Table 2, items 122 to 129.

The number of technicians in the Territory of Hawaii by islands is shown in table 2, items 130 to 133.





## Chapter V

### ANALYSIS OF SURVEY DATA

#### Distribution of Hospitals and Beds, Territory of Hawaii and Application of Standard Ratios

Table 1. Inventory of all hospitals and beds in the Territory of Hawaii, 1946, lists 61 hospitals. This figure includes 1 home for the care of the aged, the Palolo Chinese Men's Home, and 1 home for the feeble-minded, the Waimano Home\*. After eliminating these two domiciliary care facilities, we report a total of 59 hospitals in the Territory, containing 4,548 normal beds.

Table 2. Omnibus information by islands and the Territory of Hawaii, was designed to show, by islands and for the Territory as a whole, all of the various factors related to the survey. The items include dimensions and areas of each island; population figures; general, allied special, tuberculosis, chronic and mental hospitals by islands and by type of ownership; normal beds in the various types of hospitals; existing normal bed ratios; assigned hospital service areas; authorized bed ratios; existing non-acceptable normal beds; acceptable normal beds; additional normal beds which may be constructed; physicians, nurses, technicians, and health centers. Reference to this table will be made by numbered item lines.

#### Hospitals

Of the 59 hospitals in the Territory, 40 (lines 8 to 12) are general, 3 (lines 13 to 16) are allied special maternity, 1 (line 17) is an allied special children's, 1 (line 18) is an allied special orthopedic, 2 (line 19) are allied special isolation for lepers, 4 (line 21) are tuberculosis, 7 (line 22) are chronic and 1 (line 23) mental, hospitals.

The distribution of the various hospitals by islands and according to type and ownership, is shown in lines 8 to 30.

Oahu Island has 10 general, 2 maternity, 1 children's, 1 orthopedic, 1 isolation, 1 tuberculosis, 6 chronic and 1 mental, hospitals, a total of 23. Of these, 3 (1 isolation leprosarium, 1 mental and 1 chronic) are government-owned; 9 (4 general, 1 maternity, 1 children's, 1 orthopedic, 1 tuberculosis and 1 chronic) are non-profit privately owned; 5 (all general) are proprietary-plantation-owned; and 6 (1 general, 1 maternity and 4 chronic) are proprietary-individual-owned.

Hawaii Island has 17 general, 1 maternity and 1 tuberculosis hospitals, a total of 19. Of these, 4 (3 general and 1 tuberculosis) are government-owned; 8 (all general) are proprietary-plantation-owned and 7 (6 general and 1 maternity) are proprietary-individual-owned.

\*Kuakini Hospital's 30-bed section for the aged was omitted from the inventory because Kuakini is primarily a general hospital.



Maui Island has 6 general and 1 tuberculosis hospitals--a total of 7. Of these, 4 (3 general and 1 tuberculosis) are government-owned and 3 (all general) are proprietary-plantation-owned.

Kauai Island has 4 general, 1 tuberculosis and 1 chronic hospitals--a total of 6. Of these, 1 (tuberculosis) is government-owned, 1 (general) is non-profit-privately owned, 3 (2 general and 1 chronic) are proprietary-plantation-owned, and 1 (general) is proprietary-individually owned.

Molokai Island has 2 general and 1 isolation hospitals, a total of 3. Of these, 1 (isolation leprosarium) is government-owned, 1 (general) is non-profit-privately owned, and 1 (general) is proprietary-plantation-owned.

Lanai Island has 1 general hospital which is proprietary-plantation-owned.

Of the 40 general hospitals in the Territory, (Table 2, lines 8 to 12), 21 are proprietary-plantation-owned (Table 2, line 29) with a total of 783 normal beds, all general beds (Table 2, line 52).

These plantation hospitals do not confine their services to plantation populations alone; they serve others in their respective communities and they have in the past given splendid service. As will be shown, they contribute to an apparent excess of general beds on the islands of Hawaii, Maui, Molokai and Lanai. Though these plantation hospitals, judged by their income tax status, are proprietary-profit hospitals because they are not tax-exempt, they usually operate at a loss, which is absorbed by the plantation owner. Heretofore, their services were given free to employees. Recent alterations in labor-management relations, with higher pay for employees, have forced the plantation hospitals to charge employees for services, though usually at or below cost. At this time, the future of these plantation hospitals is unsettled. The owners realize the need for their continuance until other hospitalization is provided. Some hospitals will probably be continued as plantation hospitals, with rates to employees below or at cost; some may be entirely discontinued, some may be reduced to the status of dispensaries for pre-employment physical examinations and compensation purposes; some may be taken over and operated by non-profit community organizations, and a few may be purchased and operated by private individuals or groups, for profit.

### Beds

The number of complement beds, as shown in Table 1, is 5798 and the number of normal beds also shown in Table 1, is 5394. These figures include beds in the home for the aged (the Palolo Chinese Mens' Home) and in the home for the feeble-minded (the Waimano Home). After elimination of these two domiciliary care facilities, the normal beds in the 59 hospitals total 4548. These normal beds are the beds for which the existing hospitals, defined by Section 631 (e) PH725, were built, usually with an allowance of 80 square feet of floor space per bed, and exclude those in domiciliary institutions such as homes for the aged or feeble-minded, (see also Grants-In-Aid Manual, Title 2 (23-2) Instructions for Developing the State Hospital Construction Program, Federal Security Agency, U. S. Public Health Service, Exhibit 1, Par. A, 3, a and b).



## Chapter V

### ANALYSIS OF SURVEY DATA

#### Distribution of Hospitals and Beds, Territory of Hawaii and Application of Standard Ratios

Table 1. Inventory of all hospitals and beds in the Territory of Hawaii, 1948, lists 54 hospitals containing 4,955 normal beds.

Table 2. Omnibus information by islands and the Territory of Hawaii, was designed to show, by islands and for the Territory as a whole, all of the various factors related to the survey. The items include dimensions and areas of each island; population figures; general, allied special, tuberculosis, chronic and mental hospitals by islands and by type of ownership; normal beds in the various types of hospitals; existing normal bed ratios; assigned hospital service areas; authorized bed ratios; existing non-acceptable normal beds; acceptable normal beds; additional normal beds which may be constructed; physicians, nurses, technicians, and health centers. Reference to this table will be made by numbered item lines.

#### Hospitals (See Table 2)

Of the 54 hospitals in the Territory, 36 (items 8 to 12) are general, 2 (items 13 to 16) are allied special maternity, 1 (item 17) is an allied special children's, 1 (item 18) is an allied special orthopedic, 2 (item 19) are allied special isolation for lepers, 4 (item 21) are tuberculosis, 6 (item 22) are chronic and 2 (item 23) mental, hospitals.

The distribution of the various hospitals by islands and according to type and ownership, is shown in items 8 to 30.

Oahu Island has 10 general, 2 maternity, 1 children's, 1 orthopedic, 1 isolation, 1 tuberculosis, 6 chronic and 2 mental (one a 25 mental unit at Queen's General) hospitals, a total of 24. Of these, 3 (1 isolation lepro-sarium, 1 mental and 1 chronic) are government-owned; 11 (6 general, 1 maternity, 1 children's, 1 orthopedic, 1 tuberculosis and 1 chronic) are non-profit-privately-owned; 4 (all general) are proprietary-plantation-owned; and 6 (1 general, 1 maternity and 4 chronic) are proprietary-individual-owned.

Hawaii Island has 16 general, 0 maternity and 1 tuberculosis hospitals, a total of 17. Of these, 4 (3 general and 1 tuberculosis) are government-owned; 8 (all general) are proprietary-plantation-owned and 5 (all general) are proprietary-individual-owned.



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Maui Island has 5 general and 1 tuberculosis hospitals, a total of 6. Of these, 4 (3 general and 1 tuberculosis) are government-owned and 2 (all general) are proprietary-plantation-owned.

Kauai Island has 2 general and 1 tuberculosis hospitals, a total of 3. Of these, 1 (tuberculosis) is government-owned, 1 (general) is non-profit-privately-owned and 1 (general) is proprietary-plantation-owned.

Molokai Island has 2 general and 1 isolation hospitals, a total of 3. Of these, 1 (isolation leprosarium) is government-owned, 1 (general) is non-profit-privately-owned and 1 (general) is proprietary-plantation-owned.

Lanai Island has 1 general hospital which is proprietary-plantation-owned.

Of the 36 general hospitals in the Territory (Table 2, items 8 to 12) 17 are proprietary-plantation-owned (Table 2, item 29) with a total of 655 normal beds, all general beds (Table 2, item 52).

#### Beds

The total number of normal beds for the Territory is shown in Table 1 as 4,955 in the 54 hospitals. These normal beds are beds for which the existing hospitals, defined by Section 631 (e) Public Law 725, were built, usually with an allowance of 80 sq. ft. of floor space per bed.

Table 1 shows the number of normal and complement beds in each hospital and by categories (general, mental, tuberculosis and chronic).

Table 2 shows the distribution of existing normal beds by islands, by categories of hospitals, and by types of ownership (lines 31 to 61).

Of the 4,548 normal beds in the Territory's 59 hospitals (Table 2, line 47), 2,177 or 48% are general, 117 or 2.5% are maternity, 100 or 2.2% are children's, 28 or .6% are orthopedic, 125 or 2.8% are isolation for lepers, \*1,078 or 23.7% are tuberculosis, 114 or 2.5% are chronic and 809 or 17.7% are mental. The general and allied special normal beds combined total 2,547 or 53.8% (Table 2, lines 31 to 46 and lines 54 to 61).

#### General Beds

For our purpose, the general and allied special normal beds (Table 2, lines 31 to 42) are grouped under the term "general" beds, and total for the Territory, 2,547 (Table 2, line 43). Of these 2,547 beds, Oahu Island has 1,237, Hawaii Island has 611, Maui Island has 378, Kauai Island has 164, Molokai Island has 131, and Lanai Island has 26.

#### Mental Beds

All of the 809 normal mental beds are on the Island of Oahu. (Table 2, line 46).

#### Tuberculosis Beds

Of the \*1,078 tuberculosis beds in the Territory, Oahu Island has 536, Hawaii Island has 225, Maui Island has 202, and Kauai Island has 115. (Table 2, line 44.)

#### Chronic (and convalescent) Beds

Of the 114 chronic beds in the Territory, Oahu Island has 110 and Kauai Island has 4.

#### Non-Acceptable Beds

In the preceding paragraphs, we have shown the numbers and distribution of inventoried or existing normal general, mental, tuberculosis and chronic beds in the Territory. From these, we must subtract the so-called non-acceptable beds.

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\*Includes 30 beds for tuberculosis patients who are also mental patients at the Territorial Hospital, and which are not available to any other tuberculosis patients in the Territory."



Generally speaking, "non-acceptable" beds are those in a hospital or in a portion of a hospital, which is considered a "public hazard," and which "endangers the public safety," and may therefor include its entire bed capacity or only a portion thereof. (U.S.P.H.S. Regulations, Par. 10.1 f.) (Grants-In-Aid Manual Title 2 (23-2) Instructions for Developing the State Hospital Construction Program, U.S.P.H.S., Exhibit 1, Par. A, 1, b, (3).) The "physical condition" and other factors, which this "state agency" considered in the determination of non-acceptability include:-

1. Structure not fire resistant.
2. Old dilapidated building.
3. Proven natural hazards, tidal waves, storms, etc.
4. Capacity too small for type of services or economical operations.
5. Inadequate facilities for medical records maintenance.
6. Inadequate facilities for storage of supplies.
7. Inadequate facilities for laundry service.
8. Inadequate facilities for dietetic service.
9. Inadequate facilities for laboratory service.
10. Inadequate facilities for x-ray service.
11. Inadequate facilities for pharmacy service.
12. Inadequate facilities for operating section.
13. Inadequate facilities for obstetric deliveries.
14. Inadequate facilities for nurseries.
15. Inadequate or no regular physician attendance.
16. Inadequate or no trained nursing service.
17. Inadequate nurses' quarters.
18. Inadequate employees' quarters.
19. General obsolescence.
20. Closure of hospital has been decided.

Note: Because one-hour fire-resistant construction is a minimum requirement for one-story hospital buildings seeking federal aid under P. L. 725, it is necessary to designate such existing buildings which are not fire-resistant as "non-acceptable." This does not mean that such an existing building will be condemned or prevented from operating. Proposed Territorial hospital rules and regulations will permit their operation for a reasonable length of time, but will stipulate fire-resistant construction for new structures or replacements. Furthermore, these "non-acceptable" beds increase the number of beds which will be constructible "with federal aid."

After careful inspection of each hospital by the Director of Hospital Planning, the beds classified as non-acceptable are indicated in Table 1, with the reasons for non-acceptability, and in Table 2, lines 75, 80, 85 and 90, by categories of hospitals and by islands.

There are 1,763 non-acceptable general beds in the Territory; 706 on Oahu Island, 473 on Hawaii Island, 356 on Maui Island, 71 on Kauai Island, 131 on Molokai Island, and 26 on Lanai Island.

There are 120 non-acceptable mental beds in the Territory, all on Oahu Island.

There are 609 non-acceptable tuberculosis beds in the Territory, 269 on Oahu Island, 225 on Hawaii Island, and 115 on Kauai Island.

Table 1 shows the number of normal beds in each hospital and by categories (general, mental, tuberculosis and chronic).

Table 2 shows the distribution of existing normal beds by islands, by categories of hospitals, and by types of ownership (items 31 to 61).

Of the 4,955 normal beds in the Territory's 54 hospitals (Table 2, item 47), 2,101 or 42% are general, 109 or 2.2% are strictly maternity, 117 or 2.3% are strictly children's, 28 or .6% are strictly orthopedic, 125 or 2.5% are isolation for leprous patients, 1,252 or 25.2% are tuberculosis, 289 or 5.8% are chronic and 934 or 18% are mental. The general and allied special normal beds combined total 2,480 or 50.1% (Table 2, items 31 to 46 and items 54 to 61).

#### General Beds

The general and allied special normal beds (Table 2, items 31 to 42) are grouped under the term "general" beds, and the total for the Territory is 2,480 (Table 2, item 43). Of these 2,480 beds, Oahu Island has 1,338, Hawaii Island has 576, Maui Island has 300, Kauai Island has 129, Molokai Island has 111, and Lanai Island has 26.

#### Mental Beds

All of the 934 normal mental beds are on the Island of Oahu. (Table 2, item 46.)

#### Tuberculosis Beds

Of the <sup>\*</sup>1,252 tuberculosis beds in the Territory, Oahu Island has 709, Hawaii Island has 216, Maui Island has 212, and Kauai Island has 115. (Table 2, item 44.)

#### Chronic (and convalescent) Beds

Of the 289 chronic beds in the Territory, Oahu Island has 289. (Table 2, item 45.)

#### Non-Acceptable Beds

In the preceding paragraphs, there is shown the numbers and distribution of inventoried or existing normal general, mental, tuberculosis and chronic beds in the Territory. From these, there must be subtracted the so-called non-acceptable beds.

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\* Excludes 30 beds for tuberculosis patients who are also mental patients at the Territorial Hospital, and which are not available to any other tuberculosis patients in the Territory.



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After careful inspection of each hospital by the Director of Hospital Planning, the beds classified as non-acceptable are indicated in Table 1 and in Table 2, items 75, 80, 85, and 90, by categories of hospitals and by islands.

There are 1,530 non-acceptable general beds in the Territory; 709 on Oahu Island, 405 on Hawaii Island, 243 on Maui Island, 36 on Kauai Island, 111 on Molokai Island, and 26 on Lanai Island.

There are 0 non-acceptable mental beds in the Territory.

There are 115 non-acceptable tuberculosis beds in the Territory, all on Kauai Island.

There are 114 non-acceptable chronic beds in the Territory, all on Oahu Island.

### Acceptable Normal Beds

When we subtract the non-acceptable normal beds from the inventoried existing normal beds, we have the acceptable normal beds in the Territory as shown in Table 2, items 76, 81, 86, and 91.

There are (or will be when present construction projects are completed) 950 acceptable normal general beds in the Territory, 629 on Oahu Island, 171 on Hawaii Island, 57 on Maui Island, and 93 on Kauai Island.

There are (or will be when present construction project is completed) 934 acceptable normal mental beds in the Territory, all on Oahu Island.

There are (or will be when present construction projects are completed) 1,137 acceptable normal tuberculosis beds in the Territory, 709 on Oahu Island, 216 on Hawaii Island, and 212 on Maui Island.

There are 175 acceptable normal chronic beds in the Territory, all on Oahu Island.

### Adequacy of Hospitals and Beds for the Needs of the People of the Territory

Generally speaking, the measure of the Territory's and each island's needs in terms of hospital beds may be the accepted standards, as expressed by the ratios for maximum allotments given in the Act, and in the U.S.P.H.S. Regulations--these ratios are shown in Table 2, items 70 to 73. Bed-death and bed-birth ratios have been figured, but the results approximate almost exactly the U.S.P.H.S. standard ratios. These authorized ratios, applied to each island and to the Territory as a whole by categories of beds, allot the following maximum normal beds:

#### Oahu Island, Base Area, Population 371,649

General beds, Ratio	4.5 per 1,000	No. of Beds	1672
Mental beds, Ratio	5 per 1,000	" " "	1858
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 168	" " "	406
Chronic beds, Ratio	2 per 1,000	" " "	743

#### Hawaii Island, Intermediate Area, Population 73,276

General beds, Ratio	4 per 1,000	No. of Beds	293
Mental beds, Ratio	5 per 1,000	" " "	366
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 43.2	" " "	112
Chronic beds, Ratio	2 per 1,000	" " "	147

#### Maui Island, Intermediate Area, Population 46,919

General beds, Ratio	4 per 1,000	No. of Beds	188
Mental beds, Ratio	5 per 1,000	" " "	235
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 31.2	" " "	61
Chronic beds, Ratio	2 per 1,000	" " "	94



Kauai Island, Intermediate Area, Population 35,636

General beds, Ratio	4 per 1,000	No. of Beds	142
Mental beds, Ratio	5 per 1,000	" " "	178
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 18.4	" " "	50
Chronic beds, Ratio	2 per 1,000	" " "	71

Molokai Island, Rural Area, Population 5,340

General beds, Ratio	2.5 per 1,000	No. of Beds	13
Mental beds, Ratio	5 per 1,000	" " "	27
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 2.4	" " "	6
Chronic beds, Ratio	2 per 1,000	" " "	11

Lanai Island, Rural Area, Population 3,720

General beds, Ratio	2.5 per 1,000	No. of Beds	9
Mental beds, Ratio	5 per 1,000	" " "	19
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 1.2	" " "	5
Chronic beds, Ratio	2 per 1,000	" " "	7

Entire Territory of Hawaii, Population 536,722

General beds, Ratio	4.5 per 1,000	No. of Beds	2414
Mental beds, Ratio	5 per 1,000	" " "	2683
Tuberculosis beds, Ratio	$2\frac{1}{2}$ x 257.4	" " "	640
Chronic beds, Ratio	2 per 1,000	" " "	1073

When we total, for each category, the number of beds authorized for the Territory by the application of the Standard ratios, we have the following:

General Beds (by area ratios)	2317
General Beds (by Territory ratio)	2414
Mental Beds (by area or Territory ratio)	2683
Tuberculosis Beds (by area or Territory ratio)	640
Chronic Beds (by area or Territory ratio)	1073

The difference between the number of general beds by area ratios and the number of general beds by Territory ratio constitutes a general bed pool of 97 from which beds may be allocated to any island where need for such beds is manifest, according to U.S.P.H.S. Regulations. By addition of the authorized numbers of beds in the last four lines, we have a total of 6810 beds, of all categories, authorized for the Territory.

Bed Ratios

How do the numbers of the existing normal beds and existing "acceptable" normal beds, and their ratios, on each island and in the Territory, compare with the authorized beds and their ratios? By utilization of the data shown on Table 2, items 3, 62, 63, 64, 65, 70, 71, 72, 73, 74, 75, 76, 77, 79, 81, 82, 84, 85, 86, 87, 89, 91, 92, we can construct the following tabulation:

COMPARISON OF EXISTING NORMAL AND EXISTING ACCEPTABLE  
NORMAL BED RATIOS WITH AUTHORIZED RATIOS

	Exist- ing Normal Beds	Existing Normal Bed Ratios	Existing Accept. Normal Beds	Existing Acceptable Normal Bed Ratios	Author- ized Normal Beds	Authorized Bed Ratios
<b>OAHU - POP.</b> 371,649						
General	1338	3.6 per 1,000	629	1.7 per 1,000	1672	4.5 per 1,000
Mental	934	2.5 per 1,000	934	2.5 per 1,000	1858	5 per 1,000
Tuberculosis	★709	4.3 x 162.4	709	4.3 x 162.4	406	2.5 x 162.4
Chronic	289	0.8 per 1,000	175	0.5 per 1,000	743	2 per 1,000
<b>HAWAII - POP.</b> 73,276						
General	576	7.9 per 1,000	171	2.3 per 1,000	293	4 per 1,000
Mental	0	0 per 1,000	0	0 per 1,000	366	5 per 1,000
Tuberculosis	216	5 per 44.6	216	5 per 44.6	112	2.5 x 44.6
Chronic	0	0 per 1,000	0	0 per 1,000	147	2 per 1,000
<b>MAUI - POP.</b> 46,919						
General	300	6.4 per 1,000	57	1.2 per 1,000	188	4 per 1,000
Mental	0	0 per 1,000	0	0 per 1,000	235	5 per 1,000
Tuberculosis	212	8.8 x 24.2	212	8.8 x 24.2	61	2.5 x 24.2
Chronic	0	0 per 1,000	0	0 per 1,000	94	2 per 1,000
<b>KAUAI - POP.</b> 35,636						
General	129	3.6 per 1,000	93	2.6 per 1,000	142	4 per 1,000
Mental	0	0 per 1,000	0	0 per 1,000	178	5 per 1,000
Tuberculosis	115	5.7 x 20	0	0 per 20.	50	2.5 x 20
Chronic	0	0 per 1,000	0	0 per 1,000	71	2 per 1,000
<b>MOLOKAI - POP.</b> 5,340						
General	111	21 per 1,000	0	0 per 1,000	13	2.5 per 1,000
Mental	0	0 per 1,000	0	0 per 1,000	27	5 per 1,000
Tuberculosis	0	0 x 2.4	0	0 per 2.4	6	2.5 x 2.4
Chronic	0	0 per 1,000	0	0 per 1,000	11	2 per 1,000
<b>LANAI - POP.</b> 3,720						
General	26	7 per 1,000	0	0 per 1,000	9	2.5 per 1,000
Mental	0	0 per 1,000	0	0 per 1,000	19	5 per 1,000
Tuberculosis	0	0 per 2.	0	0 per 2.	5	2.5 x 2
Chronic	0	0 per 1,000	0	0 per 1,000	7	2 per 1,000
<b>TERR. OF HAW.</b> POP. 536,722						
General	2480	4.6 per 1,000	950	1.9 per 1,000	2414	4.5 per 1,000
Mental	934	1.7 per 1,000	934	1.7 per 1,000	2683	5 per 1,000
Tuberculosis	★1252	4.9 x 257.4	1137	4.4 x 257.4	640	2.5 x 257.4
Chronic	289	5 per 1,000	175	3 per 1,000	1073	2 per 1,000

★ Excludes 30 beds for tuberculosis patients who are mental patients at the Territorial Hospital, and which are not available to any other tuberculosis patients in the Territory.



### General Bed Ratios

According to the preceding tabulation, the existing normal general bed ratio for the Territory is 4.6 per 1,000, and this compares favorably with the authorized ratio of 4.5.

This Territorial ratio of 4.6, because of higher existing ratios on the other islands (7.9 on Hawaii, 6.4 on Maui, 21 on Molokai, 7 on Lanai) hides a moderate shortage on Oahu with an existing ratio of 3.6.

Referring again to the preceding tabulation, the existing acceptable normal general bed ratio for the Territory is 1.9 per 1,000; for Oahu 1.7, for Hawaii 2.3, for Maui 1.2, for Kauai 2.6, for Molokai 0, for Lanai 0, per 1,000. It is evident, therefore, that when the non-acceptable beds are deducted from the existing beds, we may, under the Act, plan for the construction of a considerable number of additional beds, as will be shown in later tabulations.

The authorized standard of 4.5 per 1,000 for general hospitals is generally accepted. For the continental United States, in 1940, the existing ratio was 3.5 beds for 1,000, many of which are probably also rated as non-acceptable. However, the range varies widely according to geographic areas:

New England	4.8	East North Central	3.6
Middle Atlantic	4.4	West North Central	3.5
Mountain	4.3	South Atlantic	2.8
Pacific	4.3	West South Central	2.3
		East South Central	1.8

Within the areas, the differences are also marked. Among the more populated and wealthy states, Massachusetts had 5.5, California 4.5 and Michigan 4.4 per 1,000. At the other extreme were Alabama with 1.8, Arkansas was 1.7 and Mississippi with 1.6. The distribution of these facilities conforms with the pattern of high or low purchasing power.

By comparison, the survey figures show that the Territory, taken as a whole, compares favorably with the States in its ratio of existing normal general beds--4.6 per 1,000.

Attention is invited to the fact that in the Territory of Hawaii, in those areas in which there is an excess of general beds, the excess is in strictly general beds, since no allied special hospitals (children's maternity, orthopedic, etc.) exist in those areas (except on Molokai which has 62 isolation beds for lepers) whereas, the ratio for Oahu remains low even with the inclusion of the allied special hospital beds in the term general beds. Eliminating the allied special beds, the ratio of general beds for Oahu is 2.7, and for the Territory as a whole 4.

Attention is again invited to what has been stated concerning plantation hospitals and the uncertainty covering their future. The 17 plantation hospitals inventoried have a total of 663 "normal" beds. These hospitals, with low occupancy rates contribute to the existing high ratios.

The ratios for existing normal beds and for existing normal acceptable beds, in the plantation hospitals by islands are shown in the following tabulation:

Ratios of Existing Normal and Existing Acceptable Normal General  
Beds in Plantation Hospitals by Islands

	* Planta- tion Pop.	Existing Normal Beds	Existing Normal Bed Ratios	Existing Acceptable Normal Beds	Existing Acceptable Normal Bed Ratios
Oahu	16,335	178	11 per 1,000	0	0 per 1,000
Hawaii	25,179	230	9 per 1,000	0	0 per 1,000
Maui	16,762	166	10 per 1,000	35	2 per 1,000
Kauai	13,714	36	4 per 1,000	0	0 per 1,000
Lanai	3,526	26	7 per 1,000	0	0 per 1,000
Molokai	1,200	19	2 per 1,000	0	0 per 1,000

\* Census of Hawaiian Sugar Planters Association 1948  
Pineapple Growers Association of Hawaii 1948

Mental Bed Ratios

The authorized standard for mental beds is 5 per 1,000 population.

Our comparison of Existing Normal Bed Ratios, Existing Acceptable Normal Bed Ratios, and Authorized Bed Ratios, shows that the Territory has, with all its mental beds on Oahu Island, the following:

Existing normal mental beds	934	Ratio 1.7
Existing acceptable normal mental beds	934	Ratio 1.7
Authorized mental beds	2683	Ratio 5.

This indicates that the Territory is in need of more mental beds and if the full authorization of 2683 beds is allotted, 1749 additional beds can be constructed.



### Tuberculosis Bed Ratios

The authorized standard for tuberculosis beds is 2.5 times the number of annual deaths averaged for the most recent five-year period for which data are available, provided that the total number of beds so determined shall not exceed 2.5 times the annual deaths from 1940 to 1944.

#### ★ Civilian Deaths from Tuberculosis 1944-1948 Territory of Hawaii

	1944	1945	1946	1947	1948	Annual Average
T. H.	281	271	281	256	198	257.4
Oahu	172	179	171	169	121	162.4
Hawaii	52	45	54	43	29	44.6
Maui	32	25	25	21	18	24.2
Kauai	21	15	25	16	23	20.
Molokai	2	3	3	3	1	2.4
Lanai	2	3	3	2		2.
Niihau						.2
Kalawao				2	6	1.6
	562	542	562	512	396	TOTAL 2574

★ From Bureau of Health Statistics, Department of Health,  
Territory of Hawaii

A comparison of Existing Normal and Existing Acceptable Normal Bed Ratios with Authorized Ratios shows that the Territory has 1137 acceptable normal tuberculosis beds and when calculated on the basis of the average annual deaths, our existing ratios for each island and for the Territory are (Table 2, line 63):

Oahu	4.4 x 162.4	annual deaths
Hawaii	4.9 x 44.6	annual deaths
Maui	8.8 x 24.2	annual deaths
Kauai	0 x 20.	annual deaths
T. H.	4.4 x 257.4	annual deaths

Since the authorized ratio for each island and for the Territory is 2.5 times the number of average annual deaths, there is an excess of acceptable beds on each island except Kauai with a deficit of 50, Molokai with a deficit of 6 and Lanai with a deficit of 5. Actually the Territory has an excess (over allowed ratios) of 497 acceptable tuberculosis beds.

## Chronic and Convalescent Bed Ratios

The authorized standard for chronic beds is 2 per 1,000 population.

Our comparison of existing Normal Bed Ratios, Existing Acceptable Normal Bed Ratios and Authorized Bed Ratios, shows that the Territory has 175 acceptable normal chronic beds (Maluhia Home) on Oahu. The ratios are as follows:

Existing normal chronic beds -----	289	Ratio	.5
Existing acceptable normal chronic beds	175	Ratio	.3
Authorized chronic beds -----	1073	Ratio	2.

This indicates that the Territory is greatly in need of more chronic beds and if the full authorization of 1073 beds is allotted, 898 additional beds can be constructed.

### Normal Beds - Acceptable and ★Non-Acceptable Beds

★Non-acceptable is based principally on absence of fire-resistant construction.

Name of Hospital	Type	No. Non-Acceptable Beds	No. Acceptable Beds
<u>Honolulu County</u>			
Berg's Nursing Home	Chronic	10	
P Ewa Plantation Co. Hosp.	General	48	
Southshore Hospital	General	44	
P Kahuku Plant. Co. Hosp.	General	34	
Kalihi Hospital	General Isolation	63	
Kanilao & Nott Home	Chronic	8	
Kapiolani Mat. & Gyn.	General Maternity		105
Kauikeolani Children's	General Children's	16	101
Kuakini Hospital	General	83	35
Leahi Hospital	Tuberculosis		709
Maluhia Home	Chronic	62	175
Mannion Nursing Home	Chronic	10	
Ogawa Lying-in Home	General Maternity	4	
P Oahu Sugar Co. Hosp.	General	52	
Queen's Hospital	General	92	267
Queen's (Mental Unit)	Mental		25
St. Francis Hospital	General	30	178
Salvation Army Women's	Chronic	4	
Shriner's Hospital	General Orthopedic		28
Manoa Conv. Home	Chronic	20	
Tamura Hospital	General	7	
Territorial Hospital	Mental		909



Normal Beds - Acceptable and Non-Acceptable Beds

(Cont.)

Name of Hospital	Type	No. Non-Acceptable Beds	No. Acceptable Beds
<u>Honolulu County (Cont.)</u>			
Wahiawa General Hospital	General	107	
P Waialua Agric. Co. Hosp.	General	44	
		738	2,532
<u>Hawaii County</u>			
*P Hakalau Plantation Co. Hosp.	General	24	
P Hamakua Mill Co. Hospital	General	11	
P Hawaiian Agric. Co. Hosp.	General	37	
Hilo Memorial Hospital	General	12	171
P Honokaa Plant. Co. Hosp.	General	30	
Kohala County Hospital	General	50	
Kona County Hospital	General	52	
P Laupahoehoe Sugar Co. Hosp.	General	27	
Matayoshi Hospital	General	26	
Matsumura Hospital	General	8	
Okada Hospital	General	6	
P Olaa Plantation Hosp.	General	51	
P Ookala Kaiwiki Sugar Co.	General	9	
Oto Hospital	General	16	
P Pepeekeo Plantation Hosp.	General	41	
Puumaile Hospital	Tuberculosis		216
Yamanoha Hospital	General	5	
		405	387

\* This hospital was closed during the past year.

Normal Beds - Acceptable and Non-Acceptable Beds

(cont.)

Name of Hospital	Type	No. Non-Acceptable Beds	No. Acceptable Beds
<u>Kauai County</u>			
Samuel Mahelona Hosp.	Tuberculosis	115	
P Waimea Hospital	General	36	
Wilcox Memorial Hosp.	General		93
		151	93
<u>Maui County</u>			
Hana County Hospital	General	30	
Kula General Hospital	General		22
Kula Sanatorium	Tuberculosis		212
P Lanai City Hospital	General	26	
Malulani Hospital	General	82	
P Maunaloa (Libby, McNeill & Libby) Hosp.	General	19	
P Pioneer Mill Co. Hosp.	General	65	
P Puunene Hospital	General	66	35
Shingle Memorial Hosp.	General	30	
		318	269
<u>Kalawao County</u>			
Kalaupapa Settlement Hosp. Unit	General- isolation	62	
		62	
GRAND TOTAL		1,674	3,281

P - Plantation-owned hospitals



Authorized Beds for Territory of Hawaii

Island	Pop.	General & Allied Special Beds			Mental Beds	T.B. Beds	Chronic Beds
		Area Ratio	At Area Ratio	At Terr. Ratio			
Oahu	371,649	4.5	1,672	1,672	1,858	420	743
Hawaii	73,276	4.	293	330	366	108	147
Maui	46,919	4.	188	211	235	78	94
Kauai	35,636	4.	142	160	178	46	71
Molokai	5,340	2.5	13	24	27	6	11
Lanai	3,720	2.5	9	17	19	3	7
Niihau	182						
TOTAL			2,317	2,414	2,683	661	1,073

Allocated General Beds - by island:

	<u>Area Ratio</u>		<u>Allocated Beds</u>
Oahu	1,672	+ 3 pool beds equal	1,675
Hawaii	293	+ 38 " " "	331
Maui	188	+ 22 " " "	210
Kauai	142	+ 16 " " "	158
Molokai	13	+ 10 " " "	23
Lanai	9	+ 8 " " "	17
TOTALS	2,317	+ 97 " " "	2,414

Declaration of Acceptable Beds  
(General, Tuberculosis, Mental & Chronic)  
For each County & Island and of additional  
beds which may be constructed

Hawaii County (Island of Hawaii) 1948

has Population	73,276
Square Miles	4,030
Acceptable General Hospital Beds	171
Acceptable Tuberculosis Hospital Beds	216
Acceptable Mental Hospital Beds	0
Acceptable Chronic Beds	0
is entitled to additional General Hospital Beds	*160
additional Tuberculosis Hospital Beds	0
additional Mental Hospital Beds	366
additional Chronic Hospital Beds	147

\* includes 38 pool beds

Declaration of Acceptable Beds  
(General, Tuberculosis, Mental & Chronic)  
For each County & Island and of additional  
beds which may be constructed  
(Cont.)

Honolulu, City & County (Island of Oahu) 1948

has Population	371,649	
Square Miles	604	
Acceptable General Hospital Beds	629	
Acceptable Tuberculosis Hospital Beds	709	
Acceptable Mental Hospital Beds	934	
Acceptable Chronic Hospital Beds	175	
is entitled to additional General Hospital Beds	★1,046	
additional Tuberculosis Hospital Beds	0	
additional Mental Hospital Beds	924	
additional Chronic Hospital Beds	568	
★ includes 3 pool beds		

Maui County (Island of Maui only) 1948

has Population	46,919	
Square Miles	728	
Acceptable General Hospital Beds	57	
Acceptable Tuberculosis Hospital Beds	212	
Acceptable Mental Hospital Beds	0	
Acceptable Chronic Hospital Beds	0	
is entitled to additional General Hospital Beds	★ 153	
additional Tuberculosis Hospital Beds	0	-(134)
additional Mental Hospital Beds	235	
additional Chronic Hospital Beds	94	
★ includes 22 pool beds		

Maui County (Island of Molokai only) 1948

has Population	5,340	
Square Miles	260	
Acceptable General Hospital Beds	0	
Acceptable Tuberculosis Hospital Beds	0	
Acceptable Mental Hospital Beds	0	
Acceptable Chronic Hospital Beds	0	
is entitled to additional General Hospital Beds	★ 23	
additional Tuberculosis Hospital Beds	6	
additional Mental Hospital Beds	27	
additional Chronic Hospital Beds	11	
★ includes 10 pool beds		

Maui County (Island of Lanai only) 1948

has Population	3,720	
Square Miles	141	
Acceptable General Hospital Beds	0	
Acceptable Tuberculosis Hospital Beds	0	
Acceptable Mental Hospital Beds	0	
Acceptable Chronic Hospital Beds	0	



Declaration of Acceptable Beds  
(Cont.)

Maui County (Island of Lanai only) 1948 (Cont.)

is entitled to additional General Hospital Beds	★	17
additional Tuberculosis Hospital Beds		3
additional Mental Hospital Beds		19
additional Chronic Hospital Beds		7
★ includes 8 pool beds		

Kauai County (Island of Kauai only) 1948

has Population	35,636	
Square Miles	551	
Acceptable General Hospital Beds	93	
Acceptable Tuberculosis Hospital Beds	0	
Acceptable Mental Hospital Beds	0	
Acceptable Chronic Hospital Beds	0	
is entitled to additional General Hospital Beds	★	65
additional Tuberculosis Hospital Beds		50
additional Mental Hospital Beds		178
additional Chronic Hospital Beds		71
★ includes 16 pool beds		

## Chapter VI

### HEALTH CENTERS

Inventoried existing public health facilities in the Territory of Hawaii number 45. Table 3 indicates their distribution by islands, their names and addresses, the type of services rendered, the type of facility and the ownership status of each.

Bearing in mind the definition of a public health center, as stated in P. L. 725, Sect. 631 (f) and in U.S.P.H.S. Regulations, par.53.1 (p) the Territory has 7 such centers:

One is the Territorial Department of Health, central office for the Territory and for the City and County of Honolulu (Oahu Island) at Honolulu, Oahu.

One is a Territorial Department of Health branch office for the City and County of Honolulu, the Lanakila Health Center at Honolulu, Oahu.

One is a Territorial Department of Health branch office for the City and County of Honolulu, the Kapahulu Health Center at Honolulu, Oahu.

One is the Territorial Department of Health branch office for the County and Island of Hawaii at Hilo, Hawaii.

One is the Territorial Department of Health branch office of the Hawaii County office for the Honokaa area at Honokaa, Hawaii.

One is the Territorial Department of Health branch office for the County of Maui and the Island of Maui at Wailuku, Maui.

One is the Territorial Department of Health branch office for the County of Kauai and the Island of Kauai at Lihue, Kauai.

The centers described above are all administrative, but the central office in Honolulu also operates laboratories; the Lanakila Center houses all tuberculosis control activities, the offices of the rural public health nurses of Oahu, and a certain number of City public health nurses, a nutritionist, Territorial Hospital mental health clinics and sanitariums; the Kapahulu Center provides prenatal, child health, venereal disease, crippled children, laboratory, and cerebral palsy programs and Territorial Hospital mental health clinics; the center at Honokaa, Hawaii, operates prenatal care, child health, tuberculosis control, and crippled children programs; the center at Wailuku, Maui also operates tuberculosis control, crippled children and mental hygiene programs.

In addition to the above public health centers, each island has a number of "subsidiary" or auxiliary health center clinics in nearby and outlying areas which bring prenatal, child health, tuberculosis and crippled children programs to the inhabitants of those areas.

There are also auxiliary laboratory facilities on Oahu, Hawaii, Maui and Kauai Island.



These "subsidiary" or auxiliary facilities are tabulated as follows:

Oahu Island has:	9 auxiliary clinic centers 1 auxiliary laboratory facility
Hawaii Island has:	4 auxiliary clinic centers 3 auxiliary laboratory facilities
Maui Island has:	5 auxiliary clinic centers 2 auxiliary laboratory facilities
Molokai Island has:	2 auxiliary clinic centers
Lanai Island has:	1 auxiliary clinic center
Kauai Island has:	10 auxiliary clinic centers 1 auxiliary laboratory facility

The above centers and auxiliary facilities are publicly owned, rented or loaned and all are operated by the Territorial Department of Health and its county and island branches.

According to U.S.P.H.S. Regulations, par. 53.31, there may be excluded from the inventory of public health centers, auxiliary public health clinics and auxiliary public health laboratories; there may also be excluded existing facilities which are "unsuitable," i.e.:

- a. "Existing facilities which the Territorial agency, after consultation with the Territorial health authority, has determined to be unsuitable for use as public health centers," and
- b. "Auxiliary facilities such as laboratories and clinics, whether existing or proposed, and whether they are located within the same structure as the health department office or in a separate structure."

Generally speaking, "unsuitable" health centers and health center facilities are those in buildings which are considered to be public hazards because they are fire hazards, are old and dilapidated, or lack the space or the structural appurtenances necessary for the conduct of the health programs and functions for which they are operated. The factors which the Territorial agency considered in the determination of unsuitability include:

1. Structure not fire resistant
2. Old, dilapidated building
3. No hot water system
4. No electric wiring
5. Inadequate office space for administration
6. Inadequate waiting room space
7. Inadequate clinic space
8. Inadequate conference and educational space
9. Inadequate laboratory space
10. Inadequate auditorium space
11. Inadequate library space

12. Inadequate storage space
13. Inadequate parking space
14. Inadequate toilet facilities
15. Location unsuitable for area population served
16. Discontinuance of facility has been decided

After careful inspection of each public health center, clinic, laboratory or other facility listed on the inventory, those classified as unsuitable are indicated in the inventory, Table 3, with the reasons for unsuitability.

With a total of 7 public health centers and 38 auxiliary clinics and laboratories existing in the Territory, it is evident that public health services have not been lacking; in fact, it may be said that few states have enjoyed such widespread coverage in public health services; scarcely a village has been without public health facilities of some kind. That some of the facilities are "unsuitable" is apparent from a study of Table 3; the urgency of need, and the shortages imposed in World War II made necessary the use of single rooms or groups of rooms, in court-houses, schools, plantation storage areas, and abandoned service buildings--unsuitable to public health work, but their utilization, with a remarkable degree of successful results from the public health services rendered, lend testimony to the ingenuity, perseverance and sincerity of the public health workers in the field.

The following tabulation shows the identification number, location and usage of each public health facility, indicating its classification as a public health center or as an auxiliary--and its suitability or non-suitability.

Health Center Facilities, Territory of Hawaii  
By Island, 1948

Ident. No.	Facility	Location	*Usage Code	★★ P. H. C.	★★ A U X.	★★ A C C E P T.	★★ N O T A C C E P T.
		<u>Island of Oahu</u>					
1.	Dept. of Health, T.H. & Oahu	Honolulu	1-2	x			x
2.	Lanakila Health Center	"	1-2-5-MH	x		x	
3.	Kapahulu Health Center	"	1-2-3-4-6-8 CC-MH	x		x	
4.	Animal Laboratory	"	2		x	x	
5.	Mental Hygiene Clinic	"	8-MH		x		x
6.	Kailua Health Center	Kailua	1-3-4-5-8-CC		x		x
7.	Kaneohe Health Center	Kaneohe	1-3-4-5-6-8-CC		x		x
8.	Hauula Health Center	Hauula	3-4		x		x
9.	Wahiawa Health Center	Wahiawa	1-3-4-5-6-8-CC		x		x
10.	Nanakuli Health Center	Nanakuli	3-4		x		x
11.	Waialua Health Center	Waialua	1-3-4-5-6-8-CC		x		x
12.	Waipahu Health Center	Waipahu	1-3-4-5-6-8-CC		x		x
13.	Aiea Health Center	Aiea	1-3-4-5-6-8-CC		x	x	



Health Center Facilities, Territory of Hawaii  
By Islands, 1948  
(Cont.)

Ident. No.	Facility	Location	*Usage Code	PH C.	AA X.	AA T.	AA C.
		<u>Island of Hawaii</u>					
14.	Dept. of Health, T. H. <del>Island</del> County of Hawaii	Hilo	1	x			x
15.	Bacteriological Laboratory	"	2-5-6-8-MH		x		x
16.	Plague Laboratory	"	2		x		x
17.	Dept. of Health, T. H. & Cy of Hawaii, Branch	Honokaa	1-3-4-5-8-CC	x			x
18.	Plague Laboratory	"	2		x		x
19.	Kohala Health Center	Kohala	3-4-5-8-CC-MH		x	x	
20.	Kona Health Center	Kealahakua	3-4-5-8-CC-MH		x		x
21.	Pahala Health Center	Pahala, Kau	3-4-5-8-CC-MH		x		x
22.	North Kona Health Center	Holualoa, Kona	8-MH		x	x	
		<u>Island of Maui</u>					
23.	Dept. of Health, T. H. and County of Maui	Wailuku	1-5-8-CC-MH-N	x			x
24.	Plague Laboratory	Kahului	1-2		x	x	
25.	Bacteriological	Wailuku	1-2		x		x
26.	Lahaina Health Center	Lahaina	1-4-5-8-CC		x	x	
27.	Makawao Health Center	Makawao	1-3-4		x		x
28.	Haiku Health Center	Libby, Kulaha	1-4		x	x	
29.	Waiakoa Health Center	Waiakoa, Kula	1-4		x		x
30.	Paia Health Center	Paia	1-3-4-5-8-CC		x	x	
		<u>Island of Molokai</u>					
31.	Dept. of Health, T. H. and Cy of Maui, Branch	Kaunakakai	1		x		x
32.	Irwin Health Center	Pukoo	3-4-6		x	x	
		<u>Island of Lanai</u>					
33.	Dept. of Health, T. H. and Cy of Maui, Branch	Lanai City	1-3-4-5		x	x	

~~\*\*\*~~ Assignment of the present Territorial Tax Office Building at Hilo to the local health department, if it occurs, will provide adequate and acceptable public health center facilities at Hilo.

Health Center Facilities, Territory of Hawaii  
By Islands, 1948  
(Cont.)

Ident. No.	Facility	Location	★Usage Code	★★	★★	★★	★★
				P H C.	A U X.	A C C E P T.	N O T A C C.
		Island of Kauai					
34.	Dept. of Health, T. H. and Cy of Kauai	Lihue	1	x			x
35.	Bacteriological Lab.	"	1-2		x	x	
36.	Kilauea Health Center	Kilauea	1-3-4-5		x	x	
37.	Kapaa Health Center	Kapaa	1-3-4-5-8-CC		x	x	
38.	Koloa Health Center	Koloa	1-3-4-5-8-CC		x	x	
39.	Kalaheo Health Center	Kalaheo	1-4-5		x	x	
40.	Eleele Health Center	Eleele	1-3-4-5-8-CC-MH		x		x
41.	Waimea Health Center	Waimea	1-4-8-MH		x	x	
42.	Hanalei Health Center	Hanalei	4		x	x	
43.	Kealia Health Center	Kealia	4-5		x	x	
44.	Hanamaulu Health Center	Hanamaulu	4		x	x	
45.	New Mill Health Center	New Mill, Eleele	4		x	x	

★ Usage Code

1. Administration
2. Laboratory
3. Prenatal care
4. Child Health
5. TB Control
6. Ven. Dis. Control
7. Dent. Hygiene
8. Other (Specify)
  - CC - Crippled Children
  - MH - Mental Hygiene
  - N - Neurology

★★ USPHS Definitions

For reasons of non-acceptability or "unsuitability," see our Table 3, Inventory of Public Health Centers

Stated briefly (see Table 2, lines 138 to 146) the Territory has 7 public health centers of which 2 are suitable and 38 auxiliary clinics and laboratories of which 20 are suitable. The suitability of each facility was based on recommendations of officers of the Department of Health and on personal inspection by the survey director.

Standard ratios authorize 17 public health centers for the Territory--so 15 could be constructed with federal financial aid.



There are no standard ratios for auxiliary clinics and laboratories, so it is assumed that 18 or more could be constructed with federal financial assistance.

The existing distribution and location of public health centers and auxiliary clinics and laboratories are considered desirable by the Department of Health; this is because with present road and transportation facilities, they have brought efficient public health services to the rural communities. When road and transportation facilities improve, which is possible, a concentration to fewer auxiliary facilities is worthy of consideration. It is considered desirable at this time to change the status of certain auxiliary clinics on Oahu to that of public health centers (branches) namely at Kaneohe, Wahiawa, Waialua and Waipahu, because of increasing population in those areas and to provide more efficient administration of auxiliary facilities in these areas.

The allocation of health centers and auxiliaries for the Territory are shown in the following tabulations. Those marked with a C are, because of present unsuitability, recommended for construction or reconstruction. Thus, there would be programmed for construction (with possible federal aid): on Oahu, 5 public health centers and 4 auxiliary facilities; on Hawaii, 2 public health centers and 5 auxiliary facilities, on Maui, 1 public health center and 3 auxiliary facilities, on Molokai, 1 auxiliary facility, on Kauai, 1 public health center and 5 auxiliary facilities.

#### Allocation of Health Centers and Auxiliaries

Island Popula- tion	Type of Facility		P. H. C.	A U X.	Location & Existing Facility
Oahu 371,649	T.H., Dept. of Health PHC	C	x		Honolulu, T.H., Dept. of Health
	Branch, " " " "		x		Honolulu, Lanakila Health Center
	Branch, " " " "		x		Honolulu, Kapahulu Health Center
	Laboratory, Animal			x	Honolulu, Plague Animal Lab.
	Mental Hygiene Clinic	C		x	Honolulu, Mental Hygiene Clinic
	Kailua H. C. Clinic	C		x	Kailua Health Center Clinic
	Kaneohe P. H. Center	C	x		Kaneohe Health Center Clinic
	Hauula H. C. Clinic	C		x	Hauula Health Center Clinic
	Wahiawa P. H. Center	C	x		Wahiawa Health Center Clinic
	Nanakuli H. C. Clinic	C		x	Nanakuli Health Center Clinic
Auth. P.H.C.s	Waialua P. H. Center	C	x		Waialua Health Center Clinic
	Waipahu P. H. Center	C	x		Waipahu Health Center Clinic
	Aiea H. C. Clinic			x	Aiea Health Center Clinic

Allocation of Health Centers and Auxiliaries  
(Cont.)

Island Popu- lation	Type of Facility		P. H. C.	A U X.	Location of Existing Facility
Hawaii 73,276  Author- ized P.H.C.s 2	County Dept. of Health, PHC	C	x		Hilo, Hawaii Cy Dept. of Health
	Laboratory, Bacteriological	C		x	Hilo, Bacteriological Laboratory
	Laboratory, Animal	C		x	Hilo, Plague Animal Laboratory
	County Dept. of Health, PHC	C	x		Honokaa, Honokaa Health Center
	Laboratory, Animal	C		x	Honokaa, Plague Animal Laboratory
	Kohala Health Center Clinic			x	Kohala, Health Center Clinic
	Kona Health Center Clinic	C		x	Kealahakua, Health Center Clinic
	Pahala Health Center Clinic	C		x	Pahala, Health Center Clinic
	North Kona H. C. Clinic			x	Holualoa, Health Center Clinic
Maui 46,919  Author- ized P.H.C.s 1	County Dept. of Health, PHC	C	x		Wailuku, Maui Cy Dept. of Health
	Laboratory, Animal			x	Kahului, Plague Animal Laboratory
	Laboratory, Bacteriological	C		x	Wailuku, Bacteriological Lab.
	Lahaina Health Center Clinic			x	Lahaina, Health Center Clinic
	Makawao Health Center Clinic	C		x	Makawao, Health Center Clinic
	Haiku Health Center Clinic			x	Libby, Kuiaha, H. C. Clinic
	Waiakoa Health Center Clinic	C		x	Waiakoa, Health Center Clinic
	Paia Health Center Clinic			x	Paia, Health Center Clinic
Molokai 5,340 Auth. P.H.C.s 0	County Dept. of H. Branch	C		x	Kaunakakai, Molokai - Branch, Maui County Dept. of Health
	Irwin Health Center Clinic			x	Pukoo, Health Center Clinic
Lanai 3,720 Auth. P.H.C.s 0	County Dept. of H. Branch			x	Lanai City, Lanai Branch, Maui County Dept. of Health
Kauai 35,636  Auth. P.H.C.s 1	County Dept. of Health, PHC	C	x		Lihue, Kauai Cy Dept. of Health
	Laboratory, Bacteriological			x	Lihue, Bacteriological Lab.
	Kilauea Health Center Clinic			x	Kilauea, Health Center Clinic
	Kapaa Health Center Clinic			x	Kapaa, Health Center Clinic
	Koloa Health Center Clinic			x	Koloa, Health Center Clinic
	Kalaheo Health Center Clinic			x	Kalaheo, Health Center Clinic
	Eleele Health Center Clinic	C		x	Eleele, Health Center Clinic
	Waimea Health Center Clinic			x	Waimea, Health Center Clinic
	Hanalei Health Center Clinic			x	Hanalei, Health Center Clinic
	Hanamaulu Health Center C.			x	Hanamaulu, Health Center Clinic
	New Mill Health Center C.			x	New Mill, Eleele, H. C. Clinic
	Hanapepe Health Center C.	C		x	None
	Kekaha Health Center Clinic	C		x	None
	Lihue Dispensary H. C. C.	C		x	None
	Kealia Dispensary H. C. C.	C		x	None



## Chapter VII

### SUMMARY OF THE TERRITORY'S NEEDS

#### General Hospitals and Beds

The Territory needs fewer but larger general hospitals on Oahu, Hawaii, and Molokai.

The Territory needs additional acceptable general beds; Oahu 1046, Hawaii 160, Maui 153, Kauai 65, Molokai 23. Lanai needs 17 acceptable beds.

#### Mental Hospitals and Beds

The Territory needs no more mental hospitals. A special psychopathic hospital of 75 to 100 beds, in Honolulu, may be desirable for early treatment. The Territory does need a small mental unit of less than 10 beds as an integral part of each area general hospital on each island.

The Territory needs 1,749 additional acceptable mental beds in Oahu for the mental disease patients of the entire Territory.

#### Tuberculosis Hospitals and Beds

The Territory needs no more tuberculosis hospitals; one on each of the larger islands, Oahu, Hawaii, Maui and Kauai will suffice. Maui's hospital can provide for Molokai's and Lanai's meager needs.

According to authorized ratios, the Territory needs no additional acceptable beds (it has 1,137 and is authorized only 640). Kauai, however, which is separated from the nearest island by 60 miles of ocean, has no acceptable beds and actually needs its authorized 50 additional acceptable beds.

#### Chronic Hospitals and Beds

The Territory needs more and larger chronic hospitals or units, at least one on each island, preferably close to or affiliated with, or a part of a large general hospital.

The Territory needs additional acceptable chronic beds; Oahu 568, Hawaii 147, Maui 94, Kauai 71, Molokai 11, Lanai 7.

Note: The additional acceptable beds needed for the Territory, of all categories cited above, are those which can be provided with federal aid within the limits of appropriated funds and in conformity with priority or relative need.

The downward revision of the number of general hospitals and the upward revision in the number of chronic hospitals (or units) considered desirable, is expressed in the following tabulation. Although a still greater concentration of the authorized beds in still fewer hospitals seems desirable, the needs of the rural communities will not permit it at this time.

#### Hospitals, Existing and Proposed

	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
General							
Existing	15	16	5	2	3	1	42
Proposed	12	6	5	2	2	1	28
Mental							
Existing	2	0	0	0	0	0	2
Proposed	2	0	0	0	0	0	2
Tuberculosis							
Existing	1	1	1	1	0	0	4
Proposed	1	1	1	1	0	0	4
Chronic							
Existing	6	0	0	0	0	0	6
Proposed	3	1	1	1	★1	★1	8

★ Small units in general hospitals.

#### Public Health Centers and Auxiliary Facilities

The Territory needs 4 additional public health centers to make a total of 11 (Oahu 7, Hawaii 2, Maui 1, Kauai 1). Assuming retention only of those existing and acceptable, it needs 9 additional public health centers (Oahu 5, Hawaii 2, Maui 1, Kauai 1).

The Territory needs approximately the same number of auxiliary facilities for a total of 37 (Oahu 6, Hawaii 7, Maui 7, Kauai 14, Molokai 2, Lanai 1). Assuming retention of those existing and acceptable, it needs 17 additional auxiliary facilities (Oahu 4, Hawaii 5, Maui 3, Kauai 5, Molokai 1).

#### Alterations in Number of Public Health Centers and Auxiliary Facilities

The upward revision of the number of public health centers while the number of auxiliary facilities remains approximately the same, is expressed in the following tabulation. Although a reduction in the number of auxiliary facilities seems desirable, the needs of the rural communities will not permit it at this time.



Public Health Centers and Auxiliary Facilities  
Existing and Proposed

	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
P. H. Centers							
Existing	3	2	1	1			7
Proposed	7	2	1	1			11
Aux. Facilities							
Existing	10	7	7	11	2	1	38
Proposed	6	7	7	14	2	1	37

## Chapter VIII

### SUMMARY AND RECOMMENDATIONS

#### Summary

##### General Hospital Beds

The number of general hospitals, which term includes maternity, children's, orthopedic, and isolation hospitals, is 42. Their distribution by islands is shown in Table 2, items 8 to 20, extracted below:

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
8. General Hospitals 0-24 beds	1	7	0	1	1	0	10
9. General Hospitals 25-49 beds	4	5	1	1	1	1	13
10. General hospitals 50-99 beds	1	3	2	1	0	0	7
11. General Hospitals 100-199 beds	2	1	1	0	0	0	4
12. General Hospitals 200-500 beds	2	0	0	0	0	0	2
13. Allied Special Mat. Hospitals 0-24	1	0	0	0	0	0	1
16. Allied Special Mat. Hospitals 100-199 beds	1	0	0	0	0	0	1
17. Allied Special Children's Hospitals	1	0	0	0	0	0	1
18. Allied Special Orthopedic Hospitals	1	0	0	0	0	0	1
19. Allied Special Isol. (leper) Hospitals	1	0	0	0	1	0	2
20. Total General (and Allied Spec.) Hospitals	15	16	5	2	3	1	42

The number of hospitals is excessive. This is due in part to the number of general and maternity hospitals of less than 25 beds (Table 2, items 8 and 13) which are in the majority individually owned profit hospitals (Table 2, item 30). It is also due in part to the existence in several areas of two or more plantation corporation owned hospitals where one might suffice (Table 2, item 29). The excess of general hospitals is not as great now (1948) as it was in 1946.



Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
30. Prop. Individually owned Hospitals	6	5	0	0	0	0	11
29. Prop. Corporation Plantation-owned Hospitals	4	8	2	1	1	1	17

The number of existing normal beds (Table 2, item 74) is slightly excessive; this is so because of surplus beds on Hawaii, Maui, Molokai and Lanai. This excess on the other islands hides a slight deficit on Kauai and a larger one on Oahu.

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
77. Auth. Gen. & A. S. Beds	★1672	★★293	★★188	★★142	★★★13	★★★9	★2414
74. Normal Gen. & A. S. Beds	1338	576	300	129	111	26	2480
Deficit	-334	+283	+112	-13	+98	+17	+66

★ On ratio of 4.5 per 1000

★★ On ratio of 4. per 1000

★★★ On ratio of 2.5 per 1000

Note: Net excess of all islands is greater than for T. H. because of smaller authorized ratios for islands compared with ratio for T. H. This difference constitutes a pool which may be allotted to islands. (97 pool bed plus 66 equals 163--the net excess for all islands.)

When the non-acceptable beds (Table 2, item 75) are separated from the normal beds (Table 2, item 74) we have the acceptable beds (Table 2, item 76). If we subtract the acceptable beds (Table 2, item 76) from the authorized beds (Table 2, item 77) we find a deficit for each island (Table 2, item 78).

Assuming that the authorized number of beds is the minimum number needed, the deficit represents the additional number of beds needed and which may be constructed with federal aid (Table 2, item 78).

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
74. Normal Gen. & A. S. Beds	1338	576	300	129	111	26	2480
75. Non-Acceptable Gen. & A. S. Beds	709	405	243	36	111	26	1530
76. Acceptable Gen. & A. S. Beds	629	171	57	93	0	0	950
77. Auth. Gen. & A. S. Beds	1672	293	188	142	13	9	2414
78. Additional Gen. Beds which may be constructed	1043	122	131	49	13	9	★1464

★ Includes the 97 pool beds

## Mental Hospital Beds

The number of mental hospitals for long-term hospitalization, one on the Island of Oahu at Kaneohe, is the desirable number. The mental unit (25 beds) at Queen's (general) Hospital at Honolulu, Oahu, is comparable to a psychiatric hospital for Honolulu and to smaller units for each other island, for pre-commitment observation of mental disease patients (Table 2, item 23).

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
23. Mental Hospitals	2	0	0	0	0	0	2

The number of existing normal beds (Table 2, item 89) is inadequate for the Territory's needs. If we deduct the existing normal beds, from the authorized beds (Table 2, item 92) this inadequacy becomes apparent.

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
92. Authorized Mental Beds	1858	366	235	178	27	19	2683
89. Existing Normal Mental Beds	934	0	0	0	0	0	934
Deficit	-924	-366	-235	-178	-27	-19	-1749

When the non-acceptable beds (Table 2, item 90) are subtracted from the normal beds (Table 2, item 89) we have the acceptable beds (Table 2, item 91). If we subtract the acceptable beds (Table 2, item 91) from the authorized beds (Table 2, item 92) we find the deficit (Table 2, item 93).

Assuming that the authorized number of beds is the minimum number needed, the deficit represents the additional number of beds which may be constructed with federal aid.

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
89. Existing Normal Mental Beds	934	0	0	0	0	0	934
90. Existing Non-Acceptable Mental Beds	0	0	0	0	0	0	0
91. Existing Acceptable Mental Beds	934	0	0	0	0	0	934
92. Authorized Mental Beds	1858	366	235	178	27	19	2683
93. Additional Mental Beds which may be constructed	924	366	235	178	27	19	1749

## Tuberculosis Hospital Beds

The number of tuberculosis hospitals (Table 2, item 21) one on each of the four larger islands, is the desirable number. It is believed that this is practicable and that tuberculosis patients should be enabled, where possible,



to enjoy the visits of relatives and that these visits should be made easy of accomplishment.

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
21. Tuberculosis Hospitals	1	1	1	1			4

The number of existing normal beds (Table 2, item 79) is in excess of the authorized beds (Table 2, item 82). Though there is an excess of 612 beds, the present occupancy of the four hospitals is Leahi 93, Puumaile 52, Kula Sanatorium 95 and Samuel Mahelona 71. Puumaile's occupancy is low because it is based on beds to be constructed and not yet available.

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
82. Authorized T. B. Beds	406	112	61	50	6	5	640
79. Normal Existing T. B. Beds	709	216	212	115			1252
Excess	303	104	151	65	-6	-5	612

When the non-acceptable beds (Table 2, item 80) are subtracted from the normal beds (Table 2, item 79) we have the acceptable beds (Table 2, item 81). If we subtract the acceptable beds (Table 2, item 81) from the authorized beds (Table 2, item 82) we find a deficit on Kauai, Molokai, and Lanai, but an excess on Oahu, Hawaii and Maui (Table 2, item 83).

Assuming that the authorized number of beds might be the minimum needed, the deficit represents the additional number of beds needed and which may be constructed with federal aid (Table 2, item 83).

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
79. Normal T. B. Beds	709	216	212	115	0	0	1252
80. Non-Acceptable T.B.Beds	0	0	0	115	0	0	115
81. Acceptable T. B. Beds	709	216	212	0	0	0	1137
82. Authorized T. B. Beds	406	112	61	50	6	5	640
83. Additional T. B. Beds which may be constructed	0	0	0	50	6	5	61

With 1137 acceptable beds in the Territory and 640 authorized, we can, under existing authorized ratios, construct no additional beds, unless we

assume that each island's needs as an isolated area should be provided on that island, regardless of an excess of beds on other islands. In the latter case, 50 beds on Kauai could be constructed. It is assumed that the needs of Molokai and Lanai can be met in the Tuberculosis Hospital on Maui. With the decline in incidence of tuberculosis which is anticipated, excess beds in tuberculosis hospitals might well be utilized for the care of chronically ill patients.

#### Chronic and Convalescent Hospital Beds

The number of chronic hospitals, which term excludes institutions for the care of the aged and mental defectives, totals 6. These distributed by islands are shown in Table 2, item 22, extracted below.

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
22. Chronic and Convalescent Hospitals	6	0	0	0	0	0	6

One of these hospitals (or homes) is the Maluhia on Oahu, the only one of considerable size. Five more homes with from 4 to 20 beds each are also on Oahu. (See Table 1, extracted below.) Eliminating the small ones, the remainder, one, is inadequate in number of beds. It is assumed that each island should have a chronic hospital or chronic unit which is a part of or affiliated with the island's major general hospital.

Table 1. Inventory (Extracted)

Name of Hospital or Home	Location	Beds	Ownership
Berg's Nursing Home	Honolulu	10	Prop.-Ind.
Kanilau and Nott Nursing Home	"	8	Prop.-Ind.
Maluhia Home	"	237	Gov.-Non-Prof.
Mannion Nursing Home	"	10	Prop.-Ind.
Salvation Army Women's Home	"	4	Pvt.-Non-Prof.
Manoa Convalescent Home	"	20	Prop.-Ind.

The number of existing normal beds (Table 2, Item 84) is definitely inadequate for the Territory's needs. If we deduct the existing normal beds (Table 2, item 84) from the authorized beds (Table 2, item 87) this inadequacy becomes apparent.



Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
87. Authorized Chronic Beds	743	147	94	71	11	7	1073
84. Existing Normal Chronic Beds	289						289
Deficit	454	147	94	71	11	7	784

The need for additional chronic beds is attested by the following observations:

An average of 200 patients daily in general hospitals occupy accommodations intended for the acutely ill, but who are convalescent, chronic, incurable and, in some cases, custodial, and who might more suitably be cared for in other institutions or hospitals where the cost would be less. Some of these are in plantation hospitals at the expense of plantation owners or of the Department of Welfare. An average of 125 patients daily, in the Territorial (Mental) Hospital, who are 65 years or older, senile and deteriorated, but not true psychotics, occupy accommodations intended for mental disease patients; they are largely custodial cases but require some nursing and supervision. Many more such cases, not yet institutionalized (an estimated 500) exist in the Territory and their number is steadily increasing because the average life expectancy is reaching the age when chronic diseases predominate.

The Maluhia Home, when completed, will provide 237 beds (62 non-acceptable) but this will only partially relieve the need for chronic beds.

When the non-acceptable beds (Table 2, item 85) are subtracted from the normal beds (Table 2, item 84) we have 175 acceptable beds (Table 2, item 86). If we subtract the acceptable beds (Table 2, item 86) from the authorized beds (Table 2, item 87) we have a deficit for each island (Table 2, item 88).

Assuming that the authorized number of beds is the minimum number needed, the deficit represents the additional number of beds needed and which may be constructed with federal aid (Table 2, item 88).

Table 2	Oahu	Hawaii	Maui	Kauai	Molokai	Lanai	T. H.
84. Normal Chronic Beds	289						289
85. Non-Acceptable Chronic Beds	114						114
86. Acceptable Existing Chronic Beds	175						175
87. Authorized Chronic Beds	743	147	94	71	11	7	1073
88. Additional Chronic Beds which may be constructed	568	147	94	71	11	7	898

## Bed Needs

Based on the standards established by the United States Public Health Service and population for the Territory of 536,722, the shortage of beds is distributed as follows:

	<u>Needed</u>	<u>Acceptable</u>	<u>Shortage</u>
General	2,414	950	1,464
Tuberculosis	640	1,137	497 (Excess)
Mental	2,683	934	1,749
Chronic	<u>1,073</u>	<u>175</u>	<u>898</u>
	6,810	3,196	3,614

Note: Actually, the totals of "shortages" or beds which may be constructed with federal aid, when allocations are made and reported on U.S.P.H.S. forms, will be:

General	1,464
Tuberculosis	50
Mental	1,749
Chronic	898

## Areas Some Thoughts Behind a Plan

Each island is practically a separate geographic area as far as hospital service is concerned. Because of ocean expanses between them, one island cannot depend on another for reasonably quick aid except by air, either to carry the patient to the needed medical care or to bring the latter to the patient.

One island, Oahu (population 371,649) has facilities and personnel to provide all types of medical care, including the most technical specialized services, for its inhabitants and for those who inhabit other islands.

Three islands having populations from 25,000 to 100,000 have facilities and personnel on each island to provide all but the most highly technical specialized services for their inhabitants. These are Hawaii, population 73,276, Maui, population 46,919, and Kauai, population 35,636.

Two islands having populations from 3,000 to 25,000 have facilities and personnel on each island to provide all of the general and some of the less technical specialized services for their inhabitants. These are Molokai, population 5,340, and Lanai, population 3,720.

One other inhabited island, Niihau, population 199, remains. Niihau is a plantation-owned island. The inhabitants must depend on transportation to the other islands for hospital and medical care. Neither hospital facilities nor personnel are available to them on these islands unless brought to them in an emergency, by chartered plane (only small planes can land on Niihau).



Each of the large islands, generally speaking, has an area of fairly dense population concentration at or near a city or town on its coast line. Lesser concentrations are also on the coast line, usually within fifty miles or less of the principal population center. A few of the lesser concentrations are more than fifty miles distant by road, seldom more than a hundred miles.

Each island has a good road network, mostly hard-paved highway, usually running fairly parallel to the coast line, with branch roads inland or shoreward to villages and towns. Few villages or towns are far inland since the inland areas are, for the most part, mountainous and very sparsely inhabited. Travel is by motor car or air. Air travel is by well established and well equipped airlines between islands and, in the case of Hawaii, between two points on that island. Flights are frequent, daily and scheduled. Hawaii Island has two commercial airports, one at Hilo and one at Upolu; Maui has one at Puunene; Lanai has one at Lanai City; Molokai has one at Hoolehua; Oahu has one at Honolulu; and Kauai has one at Barking Sands. There is none on Niihau to accommodate large planes. Favorable all year round weather stimulates the use of air transportation for passengers and small, light freight. Ship transportation takes care of heavy freight and some passengers. A study of the map of the Territory, which follows, will bear witness of these facts.

With the closest possible compliance with Sect. 53.1, Sub-part A, Part 53, Chapter 1, Title 42 (U. S. Public Health Regulations re P. L. 725) which defines areas and with consideration for the fact that the Territory is made up of islands, separated by considerable distances of ocean, it is believed that:

Oahu Island, population 371,649, should be designated as a base area. (B-1)

Hawaii Island, population 73,276, should be designated as an intermediate area. (I-1)

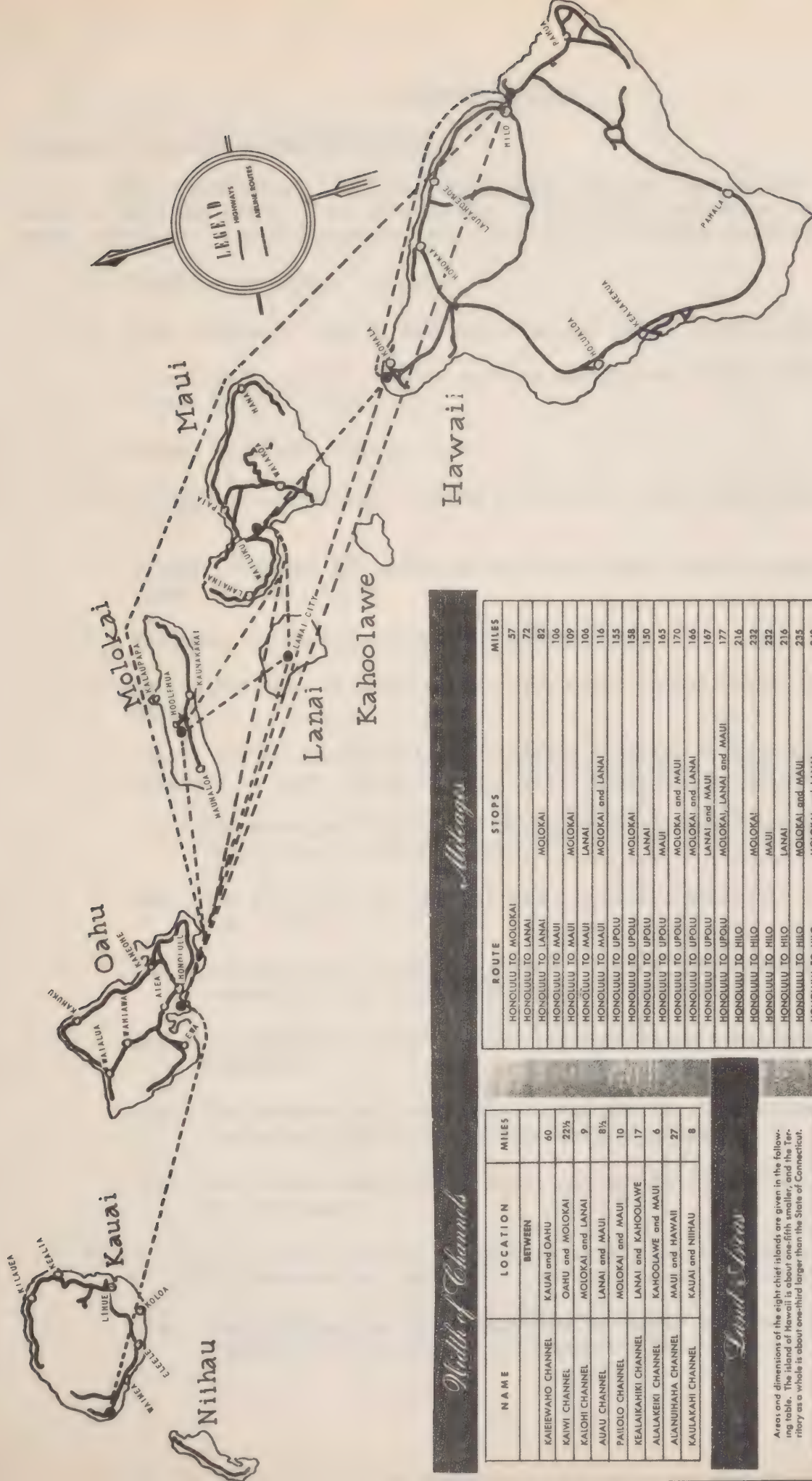
Maui Island, population 46,919, should be designated as an intermediate area. (I-2)

Kauai Island, population 35,636, should be designated as an intermediate area. (I-3)

Molokai Island, population 5,340, should be designated as a rural area. (R-1)

Lanai Island, population 3,720, should be designated as a rural area. (R-2)

And that bed allotments in the various categories should be calculated accordingly. Certain smaller outlying towns and villages on each island should have community health centers with provisions for a few emergency beds at each; these beds not to count in the allowed bed quotas for general, tuberculosis, mental disease or chronic and convalescent hospitals.



## Width of Channels

NAME	LOCATION BETWEEN	MILES
KAIERUAHAWA CHANNEL	KAUAI and OAHU	60
KAIWI CHANNEL	OAHU and MOLOKAI	22½
KALOHI CHANNEL	MOLOKAI and LANAI	9
AUUA CHANNEL	LANAI and MAUI	8½
PAILOLO CHANNEL	MOLOKAI and MAUI	10
KEALAKAHIKI CHANNEL	LANAI and KAHOO LAWE	17
ALAKAHEKI CHANNEL	KAHOO LAWE and MAUI	6
ALANUIHAHA CHANNEL	MAUI and HAWAII	27
KALAKAHI CHANNEL	KAUAI and NIIHAU	8

## Depth of Channels

Areas and dimensions of the eight chief islands are given in the following table. The island of Hawaii is about one-fifth smaller, and the Territory as a whole is about one-third larger than the State of Connecticut.

ISLAND	Extreme Length Miles	Width Miles	AREA	
			Square Miles	Acres
HAWAII	93	76	4,030	2,379,200
MAUI	48	26	778	465,900
OAHU	44	30	604	386,600
KAUAI	33	25	555	355,200
MOLOKAI	38	10	260	166,400
LANAI	18	13	141	90,200
NIIHAU	18	6	72	47,100
KAHOO LAWE	11	6	45	28,800
Total			6,435	4,119,400

ROUTE	STOPS	MILES
HONOLULU TO MOLOKAI		57
HONOLULU TO LANAI		72
HONOLULU TO LANAI	MOLOKAI	82
HONOLULU TO MAUI		106
HONOLULU TO MAUI	MOLOKAI	109
HONOLULU TO MAUI	LANAI	106
HONOLULU TO MAUI	MOLOKAI and LANAI	116
HONOLULU TO UPOLO		155
HONOLULU TO UPOLO	MOLOKAI	158
HONOLULU TO UPOLO	LANAI	150
HONOLULU TO UPOLO	MAUI	165
HONOLULU TO UPOLO	MOLOKAI and MAUI	170
HONOLULU TO UPOLO	MOLOKAI and LANAI	166
HONOLULU TO UPOLO	LANAI and MAUI	167
HONOLULU TO UPOLO	MOLOKAI, LANAI and MAUI	177
HONOLULU TO HILO		216
HONOLULU TO HILO	MOLOKAI	232
HONOLULU TO HILO	LANAI	216
HONOLULU TO HILO	MOLOKAI and MAUI	235
HONOLULU TO HILO	MOLOKAI and LANAI	242
HONOLULU TO HILO	LANAI and MAUI	232
HONOLULU TO HILO	MOLOKAI, LANAI and MAUI	242
HONOLULU TO BARKING SANDS		135
MOLOKAI TO LANAI		25
MOLOKAI TO MAUI		52
MOLOKAI TO UPOLO		105
MOLOKAI TO HILO		175
LANAI TO MAUI		34
LANAI TO UPOLO		84
LANAI TO HILO		153
MAUI TO UPOLO		60
MAUI TO HILO		126
UPOLO TO HILO		66





## Recommendations

### Organization of Hospital Facilities

A plan, territorial in scope, by islands, for the coordination of facilities to meet the needs of all the people, with special reference to those in rural sections. Included are several types of interlocking facilities, namely:

1. Teaching hospital: on Oahu
2. Area hospital: one on each major island (Oahu, Hawaii, Maui, Kauai)
3. Community hospital: one or more on each island (Oahu, Hawaii, Maui, Kauai, Molokai, Lanai)
4. Mental hospital: one on Oahu
5. Tuberculosis hospital: one on each major island (Oahu, Hawaii, Maui, Kauai)
6. Chronic hospital (or unit) one on each island (Oahu, Hawaii, Maui, Kauai, Molokai, Lanai)
7. Infirmary or dispensary health center
8. Health center: at least one on each major island (Oahu, Hawaii, Maui, Kauai)
9. Health center auxiliary (branch office, clinic, or laboratory): as required on each island (Oahu, Hawaii, Maui, Kauai, Molokai, Lanai)
  - 1-a. The teaching hospital to make its facilities available to other facilities in the Territory.
  - 2-a. The area hospital to make its facilities available to other facilities on its island.
  - 3-a. The community hospital to make its facilities available to its community including health center auxiliaries.
  - 4-a. The mental hospital to make its facilities available to the Territory.
  - 5-a. The tuberculosis hospital to make its facilities available to its island (Maui's to include Molokai, Lanai).
  - 6-a. The chronic hospital or unit to make its facilities available to its island.

Note: 1, 2, 3, to be classed as general hospitals, including allied special such as maternity, children's, orthopedic and isolation or leper.

- 7-a. The infirmary or dispensary health center to make its facilities available to its community, including health center auxiliaries.



8-a. The health center to administer public health activities for the local health department unit on each major island.

9-a. The health center auxiliary to provide clinic or laboratory facilities on each island for the community it serves.

Note: 7 not to be classed as a hospital, but as an emergency facility to provide emergency medical and obstetric care, with less than 10 beds and an out-patient service and to include in its set-up a public health auxiliary clinic facility.

### General Recommendations

In the general recommendations, immediately following, there are embodied some universally accepted principles. These are well known to those who are engaged in the construction and operation of hospitals and to their professional staffs and will be of interest to others who read this report. They are advisory only; no compulsion by territorial or federal authorities is implied except as already provided by existing territorial law.

### Function of the General Hospital

That the general hospitals provide for the care of communicable disease patients.

That the general hospitals provide for the care of some tuberculosis patients until diagnosis is established and transfer is arranged.

That the general hospitals provide for the care of acute mental disease patients until diagnosis is established and transfer is arranged.

That the general hospital provide for the care of chronic disease patients in units of its own, or lacking the latter, until transfer to another hospital is arranged.

That the general hospital in the smaller community be the focal point around which local health services are integrated.

That relationship be established between the general hospital, tuberculosis hospital, mental hospital and chronic hospital or unit, so that the equipment and personnel of the general hospital will be available to the patients of the others and vice versa.

That voluntary general hospitals be utilized by government welfare agencies for the care of medically indigent patients, with equitable remuneration, where a government hospital is not available.

That the government general hospitals in communities without voluntary hospitals provide service for pay patients.

That all hospitals conduct routine examinations including chest x-rays for the detection of tuberculosis in patients and employees.

### Acute Communicable Diseases

That general hospitals provide physical facilities and services necessary for treatment of communicable diseases, including poliomyelitis.

That special hospitals for contagious diseases be not constructed or operated.

That contagious disease patients financed with tax funds be cared for in voluntary hospitals, with adequate remuneration, when government hospitals are non-existent.

### Pulmonary Tuberculosis

That new tuberculosis hospitals be placed near and in relation with general hospitals.

That tuberculosis hospitals provide routine physical examinations, including chest x-rays for its patients and employees and for those of nearby or related general hospitals.

That the tuberculosis hospital establish a relationship with a general hospital to provide surgical and consultative service which may not be available in the former.

That the tuberculosis hospital establish strict isolation techniques to protect personnel and patients from cross infection.

That the government provide adequate subsidy to provide for tuberculosis care in government and voluntary hospitals.

That the government provide subsidy or hospital beds for the care of non-resident tuberculosis patients as well as residents.

### Mental Diseases

That the larger general hospitals provide facilities for the detention, diagnosis and treatment of mental patients residing in the area served, at least until transfer is arranged.

That mental hospitals establish relationship with general hospitals to provide surgical and consultative services if the latter are not available in the mental hospital.

That mental hospitals provide training to personnel of general hospitals so that the latter may be better prepared to care for the acute and transient mental patients it may receive.

That mental hospitals provide top-grade training in the care of mental patients to its own personnel.



## Chronic Care

That special facilities for the care of the chronically ill patients be constructed adjoining to or as units of the larger general hospitals.

That regulation of small nursing homes, if any continue to operate, be strictly enforced to guarantee a high grade of service.

That the medical staff organization of general hospitals having chronic hospital or chronic unit affiliation, include a chronic disease service under the guidance of physicians interested in that type of patient.

That construction of special facilities for medically indigent chronic disease patients be financed from tax funds and be made available to all residents in either tax-supported or voluntary hospitals.

That hospitals and units be equipped and staffed to provide for the care of convalescents and of chronically ill children, and that such care may be continued in out-patient departments when such patients no longer require hospitalization.

## Occupational Programs in Hospitals

That all hospitals, to the extent that their size renders it practicable, provide facilities and services which will aid in restoring the patient to the fullest possible measure of physical and mental health to enable him to resume his usual employment as soon as possible. These should be available to out-patients also.

## Rehabilitation Programs

That a suitable rehabilitation program for the Territory be initiated and developed along the lines suggested by the Report on a Community Rehabilitation Service and Center by the Baruch Committee on Physical Medicine. It is assumed the occupational therapy and physical therapy in hospitals will take care of rehabilitation for hospital in-patients. Public health centers of a special type might provide the rehabilitation program envisaged above.

## Expansion of the Use of Hospital Facilities

That a closer relationship between hospitals and public health facilities be established to conserve space, equipment and personnel and provide more effective service to the population, especially in rural communities.

That a well organized outpatient department be an integral part of the hospital and health service of the community.

That hospitals make their laboratory and other diagnostic facilities readily available to members of the local medical profession as well as to those of their medical staffs.

## Health Education in the Hospitals

That hospitals conduct programs in health education for patients and the general public and that such programs be coordinated with those of public health agencies.

That hospitals provide for physical examinations and health promotion for their employees.

## Standards of Service to be Maintained by Hospitals

That all hospitals meet the standards for hospitals devised by national hospital associations.

That hospitals comply with the minimum standards prescribed by the American College of Surgeons.

That standards for hospital personnel and services be established by the Territory.

That schools of nursing comply with the minimum standards of the Board for Licensing of Nurses, Territory of Hawaii.

That hospitals with highly departmentalized medical staffs comply with the standards of proficiency and training requirements established by specialty boards, when appointing specialty members to the staff, and that they, as far as possible, comply with standards of competency and efficiency of their own promulgation, for other professional, technical and trained personnel.

That hospitals encourage members of the medical staff and other professional and skilled personnel to continue their education and training. Whenever possible, local intramural programs should be initiated.

That hospitals make available opportunities for clinical research by staff members.

That voluntary, non-profit general hospitals and public hospitals expand their staff membership to include physicians engaged in the general practice of medicine in the community, as well as those limiting practice to a specialty. The criteria for acceptance to be based on education, ability and ethical conduct.

## Licensure of Hospitals

That all institutions which provide over-night bed care to the sick (or aged) should be licensed to operate and be subject to inspection by a Territorial authority.

That the Territorial authority provide regulations concerning the physical facilities and operations of such institutions.

That the Territorial authority be provided with the advice and counsel of hospital administrators and professional personnel in the preparation of such regulations and in their enforcement.



## Hospital Trustees

That boards of management of voluntary hospitals be composed of members who are broadly representative of the public they serve.

That hospitals operated by territorial, county or municipal governmental agencies be conducted under the supervision of or have the advice of a board of managers composed of representatives of the public which they serve.

That hospitals operated by religious organizations appoint representative citizen boards to advise the administration concerning community needs.

That the proprietary hospital supplying services to a community, when it is the only one available, be converted into a true not-for-profit community enterprise with a representative board of managers.

## Administration

That full authority for the administration of a hospital be vested in a single administrator appointed by the board of managers and that he be responsible only to that board.

That the administrator, if he be a doctor of medicine, be not engaged in the practice of medicine in the community.

That the administrator be selected because he is especially trained in the field of hospital administration by formal education or previous experience in hospitals.

That hospital boards of managers encourage administrators to attend hospital association meetings and formal post-graduate courses of instructions in hospital management.

## Medical Staff

That each hospital, commensurate with its size, set up a formal medical staff organization with appropriate departmentalization.

That the medical staff adopt by-laws and regulations to govern itself and to prescribe standards for membership.

That the medical staff maintain vigilant supervision and continuing evaluation of the medical care in the hospital.

That liaison between the board of managers, the administrator and the medical staff be formally established for the discussion of professional matters and of administrative and professional relationships. This is usually accomplished by a "joint committee" composed of the administrator, one or more members of the board of managers and one or more members of the medical staff.

## Oral and Dental Services in Hospitals

That a dental service be made available in each hospital with dental physicians and surgeons as members of the medical staff.

That dental internships and residencies be made available in the larger hospitals.

### Nursing Service

That a statement of functions, policies, responsibilities and relationships of the nursing service be adopted and periodically reviewed by each hospital and that they be in accordance with the recommendations of the American Nurses' Association.

That authority and responsibility for the nursing service be delegated to the director of nursing service and that she be responsible to the administrator.

That special committees be appointed as appropriate to act in an advisory capacity to the administrator and the Board of Directors upon matters which concern nursing service and nursing education.

That personnel policies affecting nurses should be formulated in cooperation with representatives from the nursing groups which they affect.

That hospitals employ graduate trained nurses in numbers sufficient to provide adequate nursing care for patients and obviate to a great extent the need for "special nurses."

That hospitals employ practical nurses licensed to practice in the Territory to assist and supplement the graduate professional nurses.

That the student nurses in schools of nursing be accorded the greatest possible measure of nurse's education and training and be not utilized solely for the purpose of supplying low-cost nursing service.

### Medical Social Services

That in general hospitals the qualifications of the social workers and the functions of the department be in accordance with the standards of the American Association of Medical Social Workers.

That in mental hospitals the qualifications of the social workers and the functions of the department be in accordance with the standards of the American Association of Psychiatric Social Workers.

### Physicians' Offices in Hospitals

That, especially in rural areas, medical services be more effectively distributed and diagnostic facilities made more available to the physician if office space in the hospital is made available to him.

That the use of hospital office space and hospital equipment by the physician be financed under arrangements equitable to the hospital and to the physician.



## Rural Hospital Service

That hospitals be constructed only in those communities in which size of population, availability of medical and technical personnel, economic conditions, etc., justify their existence.

That the location of rural hospitals be contingent upon a reasonable expectation that a high quality of medical care can be developed and maintained therein.

That rural hospitals provide office space for physicians, facilities for public health activities and diagnostic services for out patients.

That infirmary or dispensary health center facilities be provided in the more outlying rural districts in which physicians can conduct scheduled clinics or be available for consultation, and in which a nurse can be available for emergency care, pending a physician's arrival.

That the territorial or county government be ready to finance or partially subsidize the hospitals and infirmaries in the rural sections which cannot finance their own facilities.

That the larger community and area hospitals undertake to supply medical and nursing personnel, in a rotating plan, to the smaller community hospitals and infirmaries. This would provide good training for physicians and nurses and good professional medical personnel where the latter is most apt to be scarce. It would also create an interest in the practice of rural medicine.

## Size and Location of Hospitals and Size of Hospital Communities

That, with topography, roads and means of transportation being adequate, there be a minimum of 15,000 persons within a radius of 30 miles to justify the construction of a 50-bed hospital in a rural community.

That the community be large enough to finance adequately its hospital service or that, if its economic status is low, it can expect financial assistance from government or tax funds.

That small hospitals establish relations with larger ones to assure the services of specialist-consultants and advice or assistance in administrative matters.

That the rules and regulations of small hospitals adopted by their medical staffs and boards of managers be consistent with limitations of facilities and of medical practice within the hospital.

That hospitals, to be considered self-contained and self-supporting and capable of providing comprehensive medical service, be not smaller than 100-bed capacity.

That in larger cities, medical facilities be established in residential sections and so constituted that all health services for the residents of those areas are readily available in a central location within each district.

#### Public Health and Medical Service Centers

That in areas and communities which do not justify the presence of a hospital of from 25 to 50 bed capacity, smaller facilities such as infirmary or dispensary public health service centers be established and that if necessary, these facilities be established and financed as units of local or territorial government.

That these infirmary or dispensary public health service centers provide preventive and curative services and that their public health activities be under control of local or territorial public health authorities.

That these infirmary or dispensary public health service centers provide facilities for carrying out public health programs; for the commonly used diagnostic procedures; for services to ambulant patients; for patients requiring emergency bed care; for office for private physicians in local practice; for emergency service by assignment of a local health office or nurse assistant until transfer to a larger hospital can be arranged.

#### Interrelationship Among Hospitals

That medical service centers and small hospitals affiliate with larger institutions in their areas which can provide comprehensive and competent services in special fields of medicine.

That each island have a health or hospital council which will initiate and define these interrelationships between the area hospital, the community hospital, the infirmary or dispensary health center and the public health centers and auxiliaries on each island.

That the members of the "health" or "hospital council" for the Territory and for each island (or county) (1) familiarize themselves and their communities with the Hospital Construction Plan, (2) coordinate activities of other organizations, committees and individuals toward a solution of the problems involved in providing for the needs indicated in the plan, (3) urge the initiation of construction projects and the formation of management groups to operate the completed facilities, and (4) initiate fund-raising campaigns to provide matching construction funds and maintenance funds for each project.



ALLOCATION OF HOSPITALS AND BEDS

Island Population Area	Location	* A L L O C A T I O N			E X I S T I N G	
		Facility	Number of Beds Allotted	Type of Beds	Facility	Accept. Beds
Oahu 358,911 Base Area No. 1	Honolulu	AREA GEN. ) HOSPITAL )		General	Queen's	220
	"	Community ) Gen. Hosp.)	860	General	St. Francis	127
	"	Community ) Gen. Hosp.)		General	Kuakini	35
	"	Community Gen. Hosp.	150	General (Maternity)	Kapiolani	105
	"	Community Gen. Hosp.	200	General (Children's)	Kauikeolani	16
	"	Community Gen. Hosp.	30	General (Orthop.)	Shriner's	28
	"	Community Gen. Hosp.	50	General (Isol.)	Kalihi	0
	Wahiawa	Community Gen. Hosp.	100	General	Wahiawa General	0
	Ewa )	Community Gen. Hosp.	100	General	Ewa Plant. Co.	0
	Aiea ) Area				Aiea General	0
	Waipahu)				Oahu Sugar Co.	0
					Uesato Hospital	0
					Tamura Hospital	0
	Waialua	Community Gen. Hosp.	50	General	Waialua Agric.Co.	0
	Kahuku	Community Gen. Hosp.	40	General	Kahuku Pl. Co.	0
	Kaneohe	Community Gen. Hosp.	38	General	None	0
	Honolulu	AREA T. B. HOSPITAL	420+	Tuber- culosis	Leahi	237
	"	Chronic Hospital	400+	Chronic	Maluhia	0
	"	Chronic Hospital	20	Chronic	Salvation Army Home	0
	"	Chronic Hospital	100	Chronic	None	0
	Kaneohe	Mental Hospital	2595	Mental	Territorial	694
Hawaii 73,276 Inter- mediate Area No. 1	Hilo	AREA GEN. HOSPITAL	159	General	Hilo Memorial	138
	Kohala	Community Gen. Hosp.	50	General	Kohala Co.	0
	Pahala	Community Gen. Hosp.	25	General	Hawaiian Agric. Co.	0
	Kealahakua	Community Gen. Hosp.	52	General	Kona County Kona Comm.	0
	Honokaa	Community Gen. Hosp.	35	General	Honokaa Sugar Co.	0

# ALLOCATION OF HOSPITALS AND BEDS

Island Population Area	Location	★ A L L O C A T I O N			E X I S T I N G	
		Facility	Allotted	Type of Beds	Facility	Accept. Beds
Oahu 371,649 Base Area No. 1	Honolulu	AREA GEN. HOSPITAL )		General	Queen's	267
	"	Community Gen.Hosp.)	917	General	St.Francis	178
	"	Community Gen.Hosp.)		General	Kuakini	35
	"	Community Gen.Hosp.	150	General (Maternity)	Kapiolani	105
	"	Community Gen.Hosp.	200	General (Children's)	Kauikeolani	16
	"	Community Gen.Hosp.	30	General (Orthop.)	Shriner's	28
	"	Community Gen.Hosp.	50	General (Isolation)	Kalihi	0
	Wahiawa	Community Gen.Hosp.	100	General	Wahiawa General	0
	Ewa )	Community			Ewa Plant.Co.	0
	Aiea ) Area	Gen.Hosp.	100		Aiea General	0
	Waipahu)				Oahu Sugar Co.	0
					Tamura Hosp.	0
	Waialua	Community Gen.Hosp.	50	General	Waialua Agri. Co.	0
	Kahuku	Community Gen.Hosp.	40	General	Kahuku Pl.Co.	0
	Kaneohe	Community Gen Hosp.	38	General	None	0
	Honolulu	AREA T. B. HOSPITAL	420+	Tuber- culosis	Leahi	709
	"	Chronic Hospital	400+	Chronic	Maluhia	175
	"	Chronic Hospital	20	Chronic	Salvation Army Home	0
	"	Chronic Hospital	100	Chronic	None	0
	Kaneohe	Mental Hospital	2683	Mental	Territorial	909
Hawaii 73,276 Inter- mediate Area No.1	Hilo	AREA GEN. HOSPITAL	171	General	Hilo Memorial	171
	Kohala	Community Gen.Hosp.	44	General	Kohala Co.	0
	Pahala	Community Gen.Hosp.	25	General	Hawaiian Agric.Co.	0
	Kealahakua	Community Gen.Hosp.	46	General	Kona County	0
	Honokaa	Community Gen.Hosp.	35	General	Honokaa Sugar Co.	0





ALLOCATION OF HOSPITALS AND BEDS  
(Cont.)

Island Population Area	* A L L O C A T I O N				E X I S T I N G	
	Location	Facility	Number of Beds Allotted	Type of Beds	Facility	Accept. Beds
Hawaii (Cont.)	Laupahoehoe	Community Infirmary	10	General	Laupahoehoe Plant. Co.	0
	Hilo	AREA T. B. HOSPITAL	108+	T. B.	Puumaile (Vacant)	0
	Hilo	Chronic Hosp. or Unit	147	Chronic	None	0
	Holualoa	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0
	Pahoa	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0
Maui 46,919 Inter- mediate Area No. 2	Wailuku) Puunene) Area Kahului)	AREA GENERAL HOSPITAL	138	General	Malulani or Puunene	0 0
	Hana	Community Gen. Hosp.	30	General	Hana County	0
	Waiakoa	Community Gen. Hosp.	22	General	Kula General	22
	Lahaina	Community Infirmary	10	General	Pioneer Mill Co.	0
	Paia	Community Infirmary	10	General	Maui Agric. Company	0
	Waiakoa	AREA T. B. HOSPITAL	78+	T. B.	Kula Sanatorium	202
	Wailuku or Puunene	Chronic Hospital or Unit	94	Chronic	Malulani or Puunene	0 0
	Lihue	AREA GEN. HOSPITAL	100	General	Wilcox Memorial	93
Kauai 35,636 Inter- mediate Area No. 3	Waimea ) Eleele ) Koloa ) Area Kilauea)	Community Gen. Hosp.	58	General	Waimea Pl. Co. McBryde Disp. Koloa Sugar Co. None	0 0 0 0
	Kealia	AREA T. B. HOSPITAL	46+	T. B.	Samuel Mahelona	0
	Lihue	Chr. Hosp. or Unit	71	Chronic	None	0
	Hoolehua	AREA GEN. HOSPITAL	23	General	Shingle Memorial	0
Molokai 5,340 Rural Area No. 1	Kalaupapa	Community General	62	General (Isol.)	Kalaupapa Settlement	0
	Hoolehua	Chronic Unit	11	Chronic	None	0
	Maunaloa	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0
	Kaunakakai	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0



ALLOCATION OF HOSPITALS AND BEDS  
(Cont.)

Island Population Area	* A L L O C A T I O N				E X I S T I N G	
	Location	Facility	Number of Beds Allotted	Type of Beds	Facility	Accept. Beds
Lanai 3,720 Rural Area No. 2	Lanai	AREA GEN. HOSPITAL	17	General	Hawaiian Pineapple Co.	0
	Lanai City	Chronic Unit	7	Chronic	None	0

\*Allocated beds equal the total number of beds authorized by standard ratios given in the Hospital Survey and Construction Act. The difference between the "acceptable" beds and the "allocated" beds may be constructed with federal aid.

Notes: Except on Oahu, the chronic beds to be in a unit which is a part of the general hospital in the town named.

On Oahu, Maui, Kauai, Molokai and Lanai, the largest general hospital to have a mental unit for several patients for diagnosis until transfer is made to the Territorial Hospital at Kaneohe, Oahu.

On Molokai and Lanai, a few tuberculosis beds in the general hospital to be available until diagnosis is made and transfer to a tuberculosis hospital on one of the other islands is made.

Community general hospitals and community infirmaries should have health center facilities attached. Patients requiring services not available there should be transferred to the larger hospital on the island.

Community health center infirmaries should have two to five (or more up to 9) emergency beds. Patients to receive ambulatory or emergency bed care, no overnight care, and to be transferred to the larger hospital on the island. Should have health center facilities attached.

ALLOCATION OF HOSPITALS AND BEDS  
(Cont.)

Island Population Area	★ A L L O C A T I O N				E X I S T I N G	
	Location	Facility	Number of Beds Allotted	Type of Beds	Facility	Accept. Beds
Hawaii (Cont.)	Laupahoehoe	Community Infirmary	10	General	Laupahoehoe Plantation Co.	0
	Hilo	AREA T. B. HOSPITAL	108+	T. B.	Puumaile (Vacant)	216
	"	Chronic Hosp. or Unit	147	Chronic	None	0
	Holualoa	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0
	Pahoa	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0
Maui 46,919 Inter- mediate Area No.2	Wailuku) Puunene) Area Kahului)	AREA GENERAL HOSPITAL	138	General	Malulani or Puunene	0 35
	Hana	Community Gen. Hosp.	30	General	Hana County	0
	Waiakoa	Community Gen. Hosp.	22	General	Kula General	22
	Lahaina	Community Infirmary	10	General	Pioneer Mill Co.	0
	Paia	Community Infirmary	10	General	Haw'n Comm. & Sugar Co.	0
	Waiakoa	AREA T. B. HOSPITAL	78+	T. B.	Kula Sanatorium	212
	Wailuku or Puunene	Chronic Hospital or Unit	94	Chronic	None	0
Kauai 35,636 Inter- mediate Area No.3	Lihue	AREA GEN. HOSPITAL	100	General	Wilcox Memorial	93
	Waimea ) Eleele ) Area Koloa ) Kilauea)	Community Gen. Hosp.	58	General	Waimea Pl. Co. McBryde Disp. Koloa Sugar Co. None	0 0 0 0
	Kealia	AREA T. B. HOSPITAL	46+	T. B.	Samuel Mahelona	0
	Lihue	Chr. Hosp. or Unit	71	Chronic	None	0
Molokai 5,340 Rural Area No. 1	Hoolehua	AREA GEN. HOSPITAL	23	General	Shingle Memorial	0
	Kalaupapa	Community General	62	General (Isol.)	Kalaupapa Settlement	0
	Hoolehua	Chronic Unit	11	Chronic	None	0
	Maunaloa	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0
	Kaunakakai	Comm. Health Cent. Inf.	2 to 5	Emergency	None	0





## Chapter IX

### PRIORITIES

The determination of priorities or relative need is a complicated process and is described in the Hospital Survey and Construction Act and in greater detail in the U.S.P.H.S. Regulations pertaining thereto.

Section 623 (a) of the Act reads...."such state plan must....(5) set forth the relative need determined in accordance with the regulations prescribed under Section 622 (d) for the several projects included in such programs, and provide for the construction, insofar as financial resources available therefor, and for the maintenance and operation made possible, in the order of such relative need."

The U.S.P.H.S. Regulations contain the following:

Section 53.72 (c) "After having determined hospital and public health center needs, the state agency shall establish an overall construction program. This program shall set forth all such needs in accordance with the standards specified in Sections 53.12, 53.21 and 53.31 and shall show the relative need for each project included, irrespective of the availability of funds for construction and for maintenance and operation."

Section 53.72 (e) "The state agency shall establish a separate construction schedule on such forms and for such periods as the surgeon general may prescribe. Insofar as funds are available for construction and for maintenance and operation, construction shall be scheduled in the order of relative needs."

Section 53.41 "Manner of determination. The general manner in which the state agency shall determine the priority of projects included in the state construction program shall conform with the principles set out in Sections 53.40 to 53.47 inclusive."

Section 53.42 "Balance among categories of facilities. Insofar as practicable, the State agency shall develop its construction program in relation to the proportionate need for each of the five categories of facilities (general, mental, tuberculosis, chronic and health centers.) In determining proportionate needs, consideration shall be given to existing facilities and those under construction without assistance under the Federal Act."

Section 53.43 "All categories of facilities; additional facilities as against replacements. Initial installations and additions to existing hospitals and health centers shall be given priority over replacements, except:

- (a) "where the replacement is of minor character and necessary to the provision of needed additional facilities:
- (b) "where, in the case of a hospital, replacement is essential to eliminate an existing needed hospital which constitutes a public hazard.



- (c) "where, in the case of a public health center, the State health authority has certified that the existing facility is unsuitable for use as a public health center.

Section 53.44 "General hospital category. The relative priority of these projects shall be determined after consideration of the following factors in the order of importance as given:

- (a) "The relative need for beds in the area (base, intermediate, or rural) in which the project will be located, taking into account the utilization of existing general hospital beds in the area, and giving special consideration to projects providing service for persons located in rural communities and areas with relatively small financial resources.
- (b) "The extent to which beds will be made available for groups of the population which by reason of race, creed or color are less adequately served than other groups of the population.

Section 53.45 "Chronic disease category. Priority shall be given to those projects in which the chronic disease facilities will be operated as sub-units of general hospitals.

Section 53.46 "Public health centers. Highest priority in this category shall be given to the provision of facilities for local health units serving rural communities and areas with relatively small financial resources. Where the agency designated to administer the State plan is not the State health authority, the State agency shall determine the relative priorities to be established after consultation with the State health authority.

Section 53.47 "Size and character. Insofar as practicable, and without affecting the priority of hospitals serving rural communities and areas with relatively small financial resources, special consideration shall be given to applications for construction of projects of a size and character consistent with efficient and economical operation."

The development of a system of priorities is the responsibility of the State agency. The system adopted must conform with the principles established in the regulations quoted above. Regardless of the kind of system adopted by the State agency, the percentage of need met (discussed below) shall be determined for each area and Form P.H.S. 13 (HF) submitted with the State plan.

The following method was suggested by the U.S.P.H.S. for establishing priorities:

1. For general hospitals, determine the relative bed need for each base, intermediate and rural area; for tuberculosis, mental and chronic disease hospitals, determine the relative bed need for each geographic area for which these facilities are programmed. If they are programmed on a State wide basis, this is unnecessary. In determining the relative bed need, compute the percentage of need met by existing acceptable beds as follows:

- a. Divide the total number of existing acceptable beds in each area by the total number of beds needed in the area and multiply by 100 to obtain the percentage of need met by the existing acceptable beds.
2. Establish tentative area priorities.
  - a. Arrange areas for each category facility in the order of percentage of need met, working from the lowest to the highest.
  - b. Determine the number of priority groups essential and the range of percentage of need met for each group.
3. Adjust the tentative area priorities established in 2 above by considering the following factors:
  - a. The extent to which services will be provided for persons located in rural communities or areas with relatively small financial resources.
  - b. Availability of beds constructed in the area to groups of the population which by reason of race, creed or color are less adequately served than other groups of the population.
  - c. Local conditions exist which affect the relative need for facilities among areas.
4. If a state contains a relatively large number of areas with zero percentage of need met, the State agency may wish to consider dividing these areas into two or more priority groups. The group of areas determined by the State agency to have the greatest relative need, based on all the priority principles should be placed in priority group A and the next highest in group B.
5. Prepare and submit Form P.H.S. 13 (HF) Relative Need Report, with the State plan. One set of forms to be filled out, general hospitals. If tuberculosis, mental and chronic disease hospitals are programmed on a geographic basis, one set of forms to be filled out for each of these categories.
6. Determine the priority of individual projects at the time the Project Construction Schedule is being prepared.
  - a. Establish priorities for individual projects when the Project Construction Schedule is submitted. In determining the priority of individual projects, the area priority is of major importance. Normally, projects in areas of lower priority will not be ranked higher than projects in areas of higher priority. However, this may be done if other priority principles are of such significance



that the project in the area of lower priority is more urgently required in providing adequate hospital services for the people of the State. The principles given in Sections 10.43 to 10.47 of the regulations to cover determination of relative need are not exhaustive. State agencies may wish to apply additional principles in determining the priority of projects. These additional principles shall be incorporated in the State plan as required in "D" below.

- b. The priority of public health center projects should be determined by the State agency at the time the construction of projects is being considered. In determining the priority for public health center projects, the State agency must comply with Section 10.46 of the regulations quoted above.
  - c. When tuberculosis, mental and chronic disease hospitals are programmed on a State wide basis, the priority of these projects should be determined by the State agency at the time construction of these projects is being considered. In establishing these priorities, the State agency must comply with the applicable provisions of the regulations quoted above.
7. Priority of areas and projects within such areas will change at the time the construction of additional facilities is scheduled. The priority changes occur whether or not the proposed construction is aided with federal funds. The priority change takes place when construction is definitely scheduled.
- D. Material to be submitted with the State Plan:
- 1. Fill in Form PHS 13 (HF) and give the information requested. Attach to Form PHS 13 (HF), the statement regarding areas placed in higher or lower priority groups on the basis of factors other than percentage of need met by existing beds. The priority system must include at least four priority groups.
  - 2. Attach a statement concerning:
    - a. The procedure followed and the factors considered in determining area priorities, and
    - b. The principles which will be applied and the procedure which will be followed for individual projects in the various categories of facilities. See 6 above.

In accordance with the above, the following area priorities were calculated:

that the project in the area of lower priority is more urgently required in providing adequate hospital services for the people of the State. The principles given in Sections 53.43 to 53.47 of the regulations to cover determination of relative need are not exhaustive. State agencies may wish to apply additional principles in determining the priority of projects. These additional principles shall be incorporated in the State plan as required in "D" below.

- b. The priority of public health center projects should be determined by the State agency at the time the construction of projects is being considered. In determining the priority for public health center projects, the State agency must comply with Section 53.46 of the regulations quoted above.
  - c. When tuberculosis, mental and chronic disease hospitals are programmed on a State wide basis, the priority of these projects should be determined by the State agency at the time construction of these projects is being considered. In establishing these priorities, the State agency must comply with the applicable provisions of the regulations quoted above.
2. Priority of areas and projects within such areas will change at the time the construction of additional facilities is scheduled. The priority changes occur whether or not the proposed construction is aided with federal funds. The priority change takes place when construction is definitely scheduled.

In accordance with the above, the following area priorities were calculated:





Area Priority Calculations  
General Beds

Area B-1 Oahu	Existing Acceptable Needed	$\frac{629}{1675}$	x 100 =	38%
Area 1-1 Hawaii	Existing Acceptable Needed	$\frac{171}{331}$	x 100 =	52%
Area 1-2 Maui	Existing Acceptable Needed	$\frac{57}{210}$	x 100 =	27%
Area 1-3 Kauai	Existing Acceptable Needed	$\frac{93}{158}$	x 100 =	59%
Area R-1 Molokai	Existing Acceptable Needed	$\frac{0}{23}$	x 100 =	0%
Area R-2 Lanai	Existing Acceptable Needed	$\frac{0}{17}$	x 100 =	0%

Arrangement in Order of Need Met and Priority Groups

<u>Order of Need Met</u>				<u>Priority Groups</u>			
R-1	Molokai	-	0%	3 Areas	R-1	Molokai	
R-2	Lanai	-	0%		R-2	Lanai and	
1-2	Maui	-	27%		1-2	Maui	- 0 to 27%
B-1	Oahu	-	38%				
1-1	Hawaii	-	52%	2 Areas	B-1	Oahu and	
1-3	Kauai	-	59%		1-1	Hawaii	- 38 to 52%
				1 Area	1-3	Kauai	- 59%

Arrangement of Priority Groups

				<u>Range</u>
A	Areas	R-1 Molokai) R-2 Lanai )		0 to 24%
B	Areas	1-2 Maui ) B-1 Oahu )		25 to 49%
C	Areas	1-1 Hawaii ) 1-3 Kauai )		50 to 74%
D	None			75 to 100%



### Tuberculosis Beds

Area B-1 Oahu	Existing Acceptable Needed	$\frac{709}{420}$	x	100	=	169%
Area I-1 Hawaii	Existing Acceptable Needed	$\frac{216}{108}$	x	100	=	200%
Area I-2 Maui	Existing Acceptable Needed	$\frac{212}{78}$	x	100	=	272%
Area I-3 Kauai	Existing Acceptable Needed	$\frac{0}{46}$	x	100	=	0%

### Arrangement in Order of Need Met and Priority Groups

#### Order and Need Met

I-3	Kauai	-	0%
B-1	Oahu	-	169%
I-1	Hawaii	-	200%
I-2	Maui	-	272%

#### Priority Groups

1	Area	I-3	Kauai	-	0%
3	Areas	B-1	Oahu	-	169%
		I-1	Hawaii	-	200%
		I-2	Maui	-	272%

#### Arrangement of Priority Groups

A	Area	I-3	Kauai
D	Areas	B-1	Oahu )
		I-1	Hawaii )
		I-2	Maui )

#### Range

0 to 24%

100 + %

### Chronic Beds

Area B-1 Oahu	Existing Acceptable Needed	$\frac{175}{743}$	x	100	=	24%
Area I-1 Hawaii	Existing Acceptable Needed	$\frac{0}{147}$	x	100	=	0%
Area I-2 Maui	Existing Acceptable Needed	$\frac{0}{94}$	x	100	=	0%
Area I-3 Kauai	Existing Acceptable Needed	$\frac{0}{71}$	x	100	=	0%
Area R-1 Molokai	Existing Acceptable Needed	$\frac{0}{11}$	x	100	=	0%
Area R-2 Lanai	Existing Acceptable Needed	$\frac{0}{7}$	x	100	=	0%

## Chronic Beds

(Cont.)

### Arrangement in Order of Need Met and Priority Groups

<u>Order of Need Met</u>				<u>Priority Groups</u>			
I-1	Hawaii	-	0%	6 Areas	-		0%
I-2	Maui	-	0%	I-1	Hawaii		
I-3	Kauai	-	0%	I-2	Maui		
R-1	Molokai	-	0%	I-3	Kauai		
R-2	Lanai	-	0%	R-1	Molokai		
B-1	Oahu	-	0%	R-2	Lanai		
				B-1	Oahu		

<u>Arrangement of Priority Groups</u>	<u>Range</u>
---------------------------------------	--------------

A (Areas I-1 Hawaii, I-2 Maui, I-3, Kauai R-1 Molokai, R-2 Lanai, B-1 Oahu)	0 to 24%
--	----------

## Mental Beds

Area - Territory of Hawaii	Existing acceptable	719	x 100	= 27%
	Needed	2620		

### Arrangement in Order of Need Met and Priority Groups

<u>Order of Need Met</u>				<u>Priority Groups</u>			
Territory of Hawaii	-	27%		1 Area	T. H.	-	27%

<u>Arrangement of Priority Groups</u>	<u>Range</u>
---------------------------------------	--------------

B - Area T. H.	25 to 49%
----------------	-----------

## Priority Order

It is apparent that the areas of greatest priority are expressible in the following order:

1.	Each island for chronic beds	Need met	0%
1.	Hawaii and Kauai for tuberculosis beds	Need met	0%
1.	Molokai and Lanai for general beds	Need met	0%
2.	Maui for general beds	Need met	10%
3.	Territory of Hawaii for mental beds	Need met	27%
4.	Oahu for general beds	Need met	39%
5.	Hawaii for general beds	Need met	42%
6.	Oahu for tuberculosis beds	Need met	56%
7.	Kauai for general beds	Need met	59%

### Establishment of a Project Construction Schedule

a. After approval of the Territorial plan by the Public Health Service, the Board of Health will develop a Project Construction Schedule which will list the



projects for which construction can be commenced immediately. The schedule will be developed by soliciting applications from sponsoring agencies in areas of the greatest unfilled need and in the order of the area priorities as shown in the overall construction program. The number of projects included on the Project Construction Schedule will depend upon the amount of the federal allotment to the Territory.

b. Project will be selected for the Project Construction Schedule after consideration of the following factors:

- (1) The priority of the project as determined in accordance with the principles outlined in the Territorial plan for determination of relative need.
- (2) The intent of sponsoring agencies to begin construction within a reasonable length of time.
- (3) The ability of the sponsoring agency to meet the financial requirements for construction, maintenance and operation of the proposed facility.
- (4) The maintenance of an appropriate balance in the construction of the various categories of facilities. (i.e., general, tuberculosis, mental and chronic disease hospitals and public health centers) The balance between categories of facilities need not be reflected in each Project Construction Schedule. However, construction which is scheduled over the five-year program will reflect an appropriate balance between the various categories of facilities.

c. If a project is removed from the Project Construction Schedule by the Board of Health, the schedule will be revised to include the next highest priority project which meets the requirements for inclusion.

d. The fact that a project is excluded from the Project Construction Schedule for any of the several reasons will not change the project priority rating (although for other reasons this priority may change). Such projects will be considered for inclusion in each succeeding Project Construction Schedule.

e. If a project is in the highest priority group, Part I of the Project Construction application, which is prescribed by the Public Health Service may be approved and forwarded prior to approval of the Project Construction Schedule. If the project is not in the highest priority group, Part I of the Project Construction application will be submitted with the schedule.

f. The first Project Construction Schedule will be submitted to Public Health District Office #5 no sooner than two months after the approval of the Territorial plan. This two-month period is provided to enable higher priority projects to develop construction interest and furnish the essential financial assurances. Thereafter, the Schedule will be submitted on or before July 1 of each year.

g. Applications for federal assistance under P. L. 725 will be submitted on the Project Construction application which is prescribed by the Public Health Service.

Chronic Beds  
(Cont.)

Arrangement in Order of Need Met and Priority Groups

<u>Order of Need Met</u>				<u>Priority Groups</u>			
I-1	Hawaii	-	0%	5 Areas	I-1	Hawaii	- 0%
I-2	Maui	-	0%		I-2	Maui	
I-3	Kauai	-	0%		I-3	Kauai	
R-1	Molokai	-	0%		R-1	Molokai	
R-2	Lanai	-	0%		R-2	Lanai	
B-1	Oahu	-	24%	1 Area	B-1	Oahu	- 24%

<u>Arrangement of Priority Groups</u>		<u>Range</u>
A - Areas I-1 Hawaii, I-2 Maui, I-3 Kauai R-1 Molokai, R-2 Lanai, B-1 Oahu		0 to 24%

Mental Beds

Area - Territory of Hawaii	Existing Acceptable	934 x 100 = 35%
	Needed	2683

Arrangement in Order of Need Met and Priority Groups

<u>Order of Need Met</u>		<u>Priority Groups</u>	
Territory of Hawaii	- 35%	1 Area T. H.	- 35%
<u>Arrangement of Priority Groups</u>		<u>Range</u>	
B - Area T. H.		25 to 49%	

Priority Order

It is apparent that the areas of greatest priority are expressible in the following order.

1. Hawaii, Maui, Kauai, Molokai and Lanai for chronic beds	Need met	0%
1. Kauai for Tuberculosis beds	" "	0%
1. Molokai and Lanai for general beds	" "	0%
2. Oahu for chronic beds	" "	24%
3. Maui for general beds	" "	27%
4. Territory of Hawaii for mental beds	" "	35%
5. Oahu for general beds	" "	38%
6. Hawaii for general beds	" "	52%
7. Kauai for general beds	" "	59%

Establishment of a Project Construction Schedule

- a. After approval of the Territorial plan by the Public Health Service, the Board of Health will develop a Project Construction Schedule.





INVENTORY OF ALL HOSPITALS AND BEDS IN THE TERRITORY OF HAWAII, 1948  
(EXCLUSIVE OF HOMES FOR THE AGED AND THE FEEBLE-MINDED)

NORMAL BEDS AS PER P. L.  
725, U.S.P.H.S. REGULATS

Hospitals and Nursing Homes	Island	Type	★Norm. Beds	Gen.	Ment.	T.B.	Chr.	% Occ.	Non-Profit		Proprietary		Acc. Beds	Non- Acc. Beds	Bassi- nets
									Gov't.	Pvt.	Plant.	Ind.			
HONOLULU COUNTY															
Berg's Nursing Home	Oahu	Chr.	10				10					x		10	
Ewa Plant.Co.Hosp.	"	Gen.	48	48				40			x			48	6
Southshore Hospital	"	"	44	44				48		x				44	6
Kahuku Plant Co.Hosp.	"	"	34	34				37			x			34	7
Kalihi Hospital	"	G-Iso.	63	63				8	x					63	
Kanilao-Nott Nur.Home	"	Chr.	8				8					x		8	
Kapiolani Mat.& Gyn.	"	G-Mat.	105	105				65		x			105		87
Kaukeolani Children's	"	G-Chil.	117	117				64		x			16	101	
Kuakini Hospital	"	Gen.	118	118				81		x			35	83	20
Leahi Hospital	"	T.B.	709		709			93		x			709		
Maluhia Home	"	Chr.	237				237		x				175	62	
Mannion Nursing Home	"	"	10				10					x		10	
Ogawa Lying-In Home	"	G-Mat.	4	4				29				x		4	4
Oahu Sugar Co.Hosp.	"	Gen.	52	52				58			x			52	6
Queen's Hospital	"	"	359	359				70		x			267	92	45
Queen's (Mental Unit)	"	Ment.	25		25			70		x			25		
St.Francis Hospital	"	Gen.	208	208				74		x			178	30	42
Salv.Army Women's Home	"	Chr.	4				4	99		x				4	15
Shriner's Hospital	"	G-Orth.	28	28				100		x			28		
Manoa Conv.Home	"	Chr.	20				20					x		20	
Tamura Hospital	"	Gen.	7	7				27				x		7	3
Territorial Hospital	"	Ment.	909		909			118	x				909		
Wahiawa Gen.Hospital	"	Gen.	107	107				28		x				107	15
Waialua Agr.Co.Hosp.	"	"	44	44				31			x			44	7
TOTAL															
		24	3270	1338	934	709	289		3	11	4	6	2447	823	263





Hospitals and Nursing Homes	Island	Type	Norm. Beds	Gen.	Ment.	T.B.	Chr.	% Occ.	Non-Profit Govt. Pvt.	Proprietary Plant. Ind.	Acc. Beds	Non- Acc. Beds	Basinets
HAWAII COUNTY													
Hakalau Plant.Co.Hosp.	Hawaii	Gen.	24	24				42		x		24	3
Hamakua Mill Co.Hosp.	"	Gen.	11	11				49		x		11	2
Haw'n Agric.Co.Hosp.	"	Gen.	37	37				69		x		37	5
Hilo Memorial Hosp.	"	Gen.	183	183				65	x		171	12	22
Honokaa Plant.Co.Hosp.	"	Gen.	30	30				35		x		30	2
Kahala County Hospital	"	Gen.	50	50				33	x			50	6
Kona County Hospital	"	Gen.	52	52				29	x			52	9
Laupahoehoe Sugar Co.Hosp.	"	Gen.	27	27				50		x		27	4
Matayoshi Hospital	"	Gen.	26	26				29				26	2
Matsumura Hospital	"	Gen.	8	8				18				8	3
Okada Hospital	"	Gen.	6	6				16				6	3
Olaa Plant.Hospital	"	Gen.	51	51				52		x		51	11
Ookala(Kaiwika) S.C.H.	"	Gen.	9	9				42		x		9	4
Oto Hospital	"	Gen.	16	16				34				16	2
Pepeekeo Plant.Hosp.	"	Gen.	41	41				49		x		41	4
Puamale Hospital	"	T.B.	216			216			x		216		
Yamanoha Hospital	"	Gen.	5	5				17				5	2
TOTAL		17	792	576		216			4	8	5	387	84





Table 1 (Cont.)  
INVENTORY OF ALL HOSPITALS AND BEDS IN THE TERRITORY OF HAWAII, 1948  
(EXCLUSIVE OF HOMES FOR THE AGED AND THE FEEBLE-MINDED)

NORMAL BEDS AS PER P.L. 725, U.S.P.H.S. REGULATS															
Hospitals and Nursing Homes	Island	Type	Norm. Beds	Gen.	Ment.	T.B.	Chr.	% Occ.	Non-Profit Gov't	Profit Pvt.	Proprietary Plant	Ind.	Acc. Beds	Non- Acc. Beds	Bassi- nets
KAUAI COUNTY															
Samuel Mahelona Hosp.	Kauai	T.B.	115			115		71	x					115	
Waimea (Kekaha S.C.)	"	Gen.	36	36				100		x				36	7
Wilcox Memorial Hosp.	"	Gen.	93	93				50		x			93		14
TOTAL		3	244	129		115			1	1	1		93	151	21
MAUI COUNTY															
Hana County Hosp.	Maui	Gen.	30	30				28	x					30	4
Kula General Hosp.	"	Gen.	22	22				29	x				22		6
Kula Sanatorium	"	T.B.	212			212		95	x				212		
Lanai City Hosp.	Lanai	Gen.	26	26				28		x				26	6
Malulani Hospital	Maui	Gen.	82	82				68	x					82	21
Maunaloa (Libby-McNeil)	Mol.	Gen.	19	19				23		x				19	5
Pioneer Mill Co. Hosp.	Maui	Gen.	65	65				55		x				65	9
Puunene (Haw.Com. & Sugar Co.) Hosp.	"	Gen.	101	101							x		35	66	
Shingle Mem. Hosp.	Mol.	Gen.	30	30				37		x				30	7
TOTAL		9	587	375		212		363	4	1	4		269	318	58
KALAWAO COUNTY															
Kalaupapa Sett't Hosp. Unit	Mol.	Gen. Iso.	62	62				64	x					62	2
TOTAL		1	62	62				64	1					62	2
TERRITORY OF HAWAII TOTALS															
		54	4955	2480	934	1252	289		13	13	17	11	3196	1759	428





TOTAL INVENTORY

Total "Normal" beds 4955 includes beds in hospital for the aged and feeble-minded; includes beds which are unacceptable

★Normal means bed capacity for which building was planned (usually at 80 sq. ft. per bed)

"NORMAL" BEDS AS CLASSIFIED BY P. L. 725  
AND U.S.P.H.S. INSTRUCTIONS

General	2480
Mental	934
Tuberculosis	1252
Chronic &	
Convalescent	289
Total	<u>4955</u>

(Includes beds which are unacceptable)





TABLE 2

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIHAU OF HAWAII	TERRITORY OF HAWAII
1. Dimensions (miles)	44 x 30	93 x 76	48 x 26	35 x 25	38 x 10	18 x 13	18 x 6	
2. Area (Sq. Miles)	603	4,021	728	551	259	141	72	6,375
3. Population	1371,649	1173,276	1146,919	1135,636	115,340	113,720	11182	536,722
4. Population per sq.mile, 1948	616	18	64	65	20	26	2	84
5. Pop.Largest City V.S.Bd.of Health 1948	277,129	29,620						
6. Pop.1945 Bureau of Census Estimates								
7. Pop. 1948 Bd.of Health V.S.Estimates	371,649	74,870	48,544	36,493	5,531	3,413	199	415,379
8. General Hospital 0-24 Beds	1	7	1		1			540,700
9. General Hospitals 25-49 Beds	4	5	1	1	1	1		10
10. General Hospitals 50-99 Beds	1	3	2	1				13
11. General Hospitals 100-199 Beds	2	1	1					7
12. General Hospitals 200-500 Beds	2							4
13. Allied Special Maternity Hospital 0-24 Beds	1							2
14. Allied Special Mat. Hospital 25-49 Beds								1
15. Allied Special Mat. Hospital 50-99 Beds								
16. Allied Special Mat. Hospitals 100-199 Beds	1							
17. Allied Special Children's Hospital	1							
18. Allied Special Orthopedic Hospital	1							

\* Population 1948 estimates, Bureau of Health Statistics, Board of Health, July 1, 1949

\* Population 1940 Bureau of Census, Department of Commerce 1940 Report

Note: These population figures will be the basis for calculating ratios, allowances of beds, etc.



TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIHAU	TERRITORY OF HAWAII
19. Allied Special Isolation Hosp. (Leprosarium)	1				1			2
20. Total General and Allied Special Hospitals	15	16	5	2	3	1		42
21. Tuberculosis Hospitals	1	1	1	1				4
22. Chronic and Convalescent Hospitals	6							6
23. Mental Hospitals	2							2
24. Total Hospitals	24	17	6	3	3	1		54
25. Home for Aged	1							1
26. Home for the Feeble-minded	1							1
27. Non-Profit Government Hospitals	3	4	4	1	1			13
28. Non-Profit Private Hospitals	11			1	1			13
29. Proprietary-Corporation Plantation Hosp.	4	8	2	1	1	1		17
30. Proprietary-Individual-owned Hospitals	6	5						11
31. Normal Beds General Hospital 0-24 Beds	7	79	22		19			127
32. Normal Beds General Hospital 25-49 Beds	170	161	30	36	30	26		453
33. Normal Beds General Hospital 50-99 Beds	52	153	147	93				445
34. Normal Beds General Hospital 100-199 Beds	225	183	101					509
35. Normal Beds General Hospital 200-500 Beds	567							567
36. Normal Beds A.S. Maternity 0-24 Beds	4							4

\* Normal denotes the number of beds for which the institution was built; usually at an allowance of 80 sq. ft. of floor space per bed

\*\* One is a 25-bed mental unit at Queen's General Hospital

TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIIHAU	TERRITORY OF HAWAII
37. Normal Beds A. S. Maternity 25-49 Beds								
38. Normal Beds A. S. Maternity 50-99 Beds								
39. Normal Beds A. S. Maternity 100-199 Beds	105							105
40. Normal Beds A. S. Children's	117							117
41. Normal Beds A. S. Orthopedic	28							28
42. Normal Beds A. S. Isolation (leprosarium)	63				62			125
43. Total General & Allied Special Normal Beds	1338	576	300	129	111	26		2480
44. Normal Beds Tuberculosis	709	216	212	115				1252
45. Normal Beds Chronic and Convalescent	289							289
46. Normal Beds Mental	934							934
47. Total Normal Beds All Hospitals	3270	792	512	244	111	26		4955
48. Normal Beds Home for Aged	128							128
49. Normal Beds Home for Feeble-minded	718							718
50. Normal Beds in Government Hospitals	1209	501	346	115	62			2233
51. Normal Beds in Non-Profit Private Hospitals	1824			93	30			1947
52. Normal Beds in Prop-Corp (Plant.) Hospitals	178	230	166	36	19	26		655
53. Normal Beds in Prop-Individual-Owned Hosp.	59	61						120
54. % General Hospital Normal Beds								42%



TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIHAU	TERRITORY OF HAWAII
55. % Maternity Hospital Normal Beds								2.2%
56. % Children's Hospital Normal Beds								2.3%
57. % Orthopedic Hospital Normal Beds								6%
58. % Isolation Hospital Normal Beds								2.5%
59. % Tuberculosis Hospital Normal Beds								25.2%
60. % Chronic & Convalescent Hosp. Normal Beds								5.8%
61. % Mental Hospital Normal Beds								18%
62. Existing Accept. Normal Bed Ratio, Gen. & Allied Special	1.7 per 1,000	2.3 per 1,000	1.2 per 1,000	2.6 per 1,000				1.9 per 1,000
63. Existing Acceptable Normal Bed Ratio, Tuberculosis	4.4 x 162.4	4.9 x 44.6	8.8 x 24.2	0. x 20.				4.4 x 257.4
64. Existing Acceptable Normal Bed Ratio, Chronic and Convalescent	0.5 per 1,000							0.3 per 1,000
65. Existing Acceptable Normal Bed Ratio, Mental	2.5 per 1,000							1.7 per 1,000
66. Area, Base Assigned	B-1							
67. Area, Intermediate, Assigned		1-1	1-2	1-3				
68. Area, Rural Assigned					R-1	R-2		Honolulu
69. Area, Regional Assigned	Base 4.5 per 1,000	Intermed. 4. per 1,000	Intermed. 4. per 1,000	Intermed. 4. per 1,000	Rural 2.5 per 1,000	Rural 2.5 per 1,000		4.5 per 1,000
70. Area-Ratio Authorized for Gen. & A.S. Beds	2.5 x 162.4	2.5 x 44.2	2.5 x 24.2	2.5 x 20.	2.5 x 2.4	2.5 x 2.5		2.5 x 257.4
71. Ratio Authorized for Tuberculosis Beds	2 per 1,000	2 per 1,000	2 per 1,000	2 per 1,000	2 per 1,000	2 per 1,000		2 per 1,000
72. Ratio Authorized for Chronic & Convalescent Beds								

★ Average Annual Deaths, in Period 1944-1948

TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIIHAU	TERRITORY OF HAWAII
73. Ratio Authorized for Mental Beds	5. per 1,000	5. per 1,000	5. per 1,000	5. per 1,000	5. per 1,000	5. per 1,000		5. per 1,000
74. Existing Normal Gen. & A. S. Beds	1,338	576	300	129	111	26		2,480
75. Exist. Non-Accept. Gen. & A.S.Beds	709	405	243	36	111	26		1,530
76. Exist. Accept. Gen. & A.S.Beds	629	171	57	93				950
77. Authorized General and A.S.Beds	1,672	293	188	142	13	9		<del>111</del> <del>1111</del> 2,414
78. Additional Gen. & A.S.Beds which may be constructed	1,043	122	131	49	13	9		<del>111</del> 1,464
79. Existing Normal Tuberculosis Beds	709	216	212	115				1,252
80. Existing Non-Accept. Tuberculosis Beds				115				115
81. Existing Acceptable Tuberculosis Beds	709	216	212					1,137
82. Authorized Tuberculosis Beds	406	112	61	50	6	5		640
83. Additional T.B.Beds which may be constr.	None	None	None	50	6	5		61
84. Existing Normal Chronic & Conv. Beds	289							289
85. Existing Non-Accept. Chronic & Conv. Beds	114							114
86. Existing Accept. Chronic & Conv. Beds	175							175
87. Authorized Chronic and Conv. Beds	743	147	94	71	11	7		<del>111</del> <del>1111</del> 1,073
88. Add'l Chronic & Conv. Beds which may be constructed	568	147	94	71	11	7		898
89. Existing Normal Mental Beds	934							934
90. Existing Non-Acceptable Mental Beds								

~~111~~ Population 536,722 and ratio 4.5 per 1,000~~1111~~ Population 536,722 and ratio 2. per 1,000~~11111~~ Includes 97 pool beds



TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIHAU	TERRITORY OF HAWAII
91. Existing Acceptable Mental Beds	934							934
92. Authorized Mental Beds	1,858	366	235	178	27	19		AAA2,683
93. Additional Mental Beds which may be Constructed	924	366	235	178	27	19		1,742
94. Total Add'l Beds which may be Constructed	2,535	635	460	344	57	38		AAAA4,166
95. Physicians, 1940	239	45	23	23	4	2		336
96. Population per Physician 1940	1,079	1,184	2,039	1,549	1,335	1,360		1,258
97. Physicians, 1948	305	48	25	18	6	1		403
98. Population per Physician 1948	1,218	1,560	1,942	2,027	921	3,413		1,341
99. Physicians 1948 Institutional	20	1	1	4	1			27
100. Physicians 1948 Board of Health	11	1						12
101. Physicians 1948 Plantation	6	14	10	7	1	1		32
102. Physicians 1948 Group	58							58
103. Physicians 1948 Individual	210	32	14	7	4			267
104. Physicians 1948 General Practice	145	39	22	10	4	1		221
105. Physicians 1948 Surgery	39	2		1				42
106. Physicians 1948 E. E. N. T.	28	3		1				32
107. Physicians 1948 Obstet. & Gynec.	19							19
108. Physicians 1948 T. B. and Chest Surgery	5	1	1	1				8

★ Based on report, Bureau of the Census, Department of Commerce, 1940

★★ Based on estimates for 1948, Bureau of Vital Statistics, Board of Health, T. H. July 1, 1948

★★★ Population 536,722 and ratio 5. per 1,000

★★★★ Includes 97 Pool General Beds

TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIIHAU	TERRITORY OF HAWAII
109. Physicians 1948 Pediatrics	15	1						16
110. Physicians 1948 Int. Medicine	20							20
111. Physicians 1948 Neuropsychiatry	11							11
112. Physicians 1948 Urology	1							1
113. Physicians 1948 X-ray & Radiology	4							4
114. Physicians 1948 Pathology	3							3
115. Physicians 1948 Public Health	11	1						12
116. Physicians 1948 Derm. & Syph.	4				1			5
117. Physicians 1948 Orthopedics	4							4
118. Physicians 1948 Hematology	1							1
119. Physicians 1948 Allergy	1							1
120. Dentists 1948	193	26	15	8	1	1		244
121. ★ Dentist per Population 1948	1,920	2,880	3,236	4,562	5,531	3,413		2,215
122. Reg. Nurses 1948 Institutional (Including Nursing Education)	371	70	41	30	14	4		530
123. Reg. Nurses 1948 Private Duty	92	9		3				104
124. Reg. Nurses 1948 Industrial	35	7	4	4	1	1		52
125. Reg. Nurses 1948 Office	93	2	1		1			97
126. Reg. Nurses 1948 School	8	2						10

★ Based on estimates for 1948, Bureau of Vital Statistics, Board of Health, T. H., July 1, 1948



TABLE 2 (Cont.)

## OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII

Item	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIIHAU	TERRITORY OF HAWAII
127. Registered Nurses 1948 Public Health	66	15	6	10	1	1		99
128. Registered Nurses 1948 Not Working	263	32	23	17		3		338
129. Registered Nurses 1948 Totals	928	137	75	64	17	9		1,230
130. X-ray Tech. 1948 in Hospitals	29	7	7	2	3	1		49
131. Lab. Tech. 1946 in Hospitals	27	9	6	5	2			49
132. P. T. Tech. 1948 in Hospitals	11		1					12
133. Occ. Therapists 1948 in Hospitals	14		1					15
134. Public Health Facilities Inventoried	13	9	8	12	2	1		45
135. Public Health Facilities Publicly Owned	6	5	1	6	1			19
136. Public Health Facilities Rented		4	3	1	1			9
137. Public Health Facilities Donated	7		4	5		1		17
138. Existing Public Health Centers (USPHS DEF.)	3	2	1	1				7
139. Existing Public Health Centers Unsuitable	1	2	1	1				5
140. Existing Public Health Centers Suitable	2							2
141. Authorized Public Health Center	12	2.4	1.5	1				17
142. Authorized Public Health Center Ratio	1-30,000	1-30,000	1-30,000	1-30,000	1-30,000	1-30,000		1-30,000
143. Public Health Centers which may be Constr.	10	2.4	1.5	1				15
144. Existing Aux. Fac. (Clinics and Labs.)	10	7	7	11	2	1		38

TABLE 2 (Cont.)

Item	OMNIBUS INFORMATION BY ISLANDS AND THE TERRITORY OF HAWAII							TERRITORY OF HAWAII
	OAHU	HAWAII	MAUI	KAUAI	MOLOKAI	LANAI	NIIHAU	
145. Existing Aux. Facilities Unsuitable	8	5	3	1	1			18
146. Existing Aux. Facilities Suitable	2	2	4	10	1	1		20





TABLE 3

## INVENTORY OF PUBLIC HEALTH CENTERS

SUBSIDIARY PUBLIC HEALTH CLINICS AND AUXILIARY PUBLIC HEALTH LABORATORIES, TERRITORY OF HAWAII, 1948									
NAME OF FACILITY	ADDRESS	IDENT. NO.	★ USAGE CODE	★ C. S.	A. P. O.	★ R. D.	FACILITIES WHICH ARE UNSUITABLE	REMARKS CONCERNING UNSUITABILITY	
Island of Oahu Dept. of Health, T. H.	Queen & Punchbowl Sts. Honolulu, Oahu	1	1-2	x	x		x	5-6-7-8	
Lanakila Health Center	1722 Lanakila Street Honolulu, Oahu	2	1-2-5-MH	x	x				
Kapahulu Health Center	548 Kapahulu Avenue Honolulu, Oahu	3	1-2-3-4- 6-8-CC-MH	x	x				
Plague Animal Lab.	Ilalo St., Hon., Oahu	4	2		x				
Mental Hygiene Clinic	Univ. of Haw., Hon., Oahu	5	8-MH		x		x	1-2-3-8-11	
Kailua Health Center	Kuulei St., Kailua, Oahu	6	1-3-4-5-8- CC	x		x	x	1-2-3-5-6-7- 8-11-12-14	
Kaneohe Health Center	Kaneohe, Oahu	7	1-3-4-5-6- 8-CC		x		x	1-2-3-5-6- 7-8-12	
Hauula Health Center	Hauula School, Hau., Oahu	8	3-4	x		x	x	1-5-6-7-8- 11-12-14	
Wahiawa Health Center	Wahiawa Court House, Wahiawa, Oahu	9	1-3-4-5-6- 8-CC	x		x	x	1-3-5-6-7- 8-12-14	
Nanakuli Health Center	Nanakuli, Oahu	10	3-4	x		x	x	1-2-3-5-6-7- 8-12-14	
Waialua Health Center	Waialua Court House, Waialua, Oahu	11	1-3-4-5-6- 8-CC	x		x	x	1-2-3-5-6-7- 8-11-12	
Waipahu Health Center	Oahu Sugar Co. Hosp. Waipahu, Oahu	12	1-3-4-5-6- 8-CC	x		x	x	1-2	
Aiea Health Center	Aiea, Oahu	13	1-3-4-5-6- 8-CC	x		x			
TOTALS				3	9	1	6	9	





TABLE 3 (Cont.)

## INVENTORY OF PUBLIC HEALTH CENTERS

SUBSIDIARY PUBLIC HEALTH CLINICS AND AUXILIARY PUBLIC HEALTH LABORATORIES, TERRITORY OF HAWAII, 1948										
NAME OF FACILITY	ADDRESS	IDENT. NO.	★ USAGE CODE	C.	★ S.	A.	P.O.	R.	D.	FACILITIES WHICH ARE UNSUITABLE REMARKS CONCERNING UNSUITABILITY
Island of Hawaii										
Dept. of Health, T.H. County of Hawaii	37 Kekaulike St., Hilo, Hawaii	14	1	x			x			x 5-6-7-8-11-12-14
Bacteriological Lab.	Waiakea, Hilo, Hawaii	15	2-5-6-8 MH			x	x			x 5-9-12
Plague Laboratory	Waiakea, Hilo, Hawaii	16	2			x	x			x 1-5-8-12
Dept. of Health, T.H. Cy. of Haw. Branch	Honokaa, Hawaii	17	1-3-4-5 8-CC	x			x			x 5-6-7-8-12
Plague Laboratory	Honokaa, Hawaii	18	2				x			x 1-5-8-12
Kohala Health Center	Kohala, Hawaii	19	3-4-5-8 CC-MH	x		x		x		2-5-6-7-8-12
Kona Health Center	Kealahou, Hawaii	20	3-4-5-8 CC-MH	x		x		x		x 5-7-8-12
Pahala Health Center	Pahala, Kau, Hawaii	21	3-4-5-8 CC-MH	x		x		x		x 1-6-8-12
North Kona Health Center	Holualoa, Kona Hawaii	22	8-MH	x		x		x		
TOTALS				2	4	3	5	4		7





TABLE 3 (Cont.)  
INVENTORY OF PUBLIC HEALTH CENTERS

SUBSIDIARY PUBLIC HEALTH CLINICS AND AUXILIARY PUBLIC HEALTH LABORATORIES, TERRITORY OF HAWAII, 1948

NAME OF FACILITY	ADDRESS	IDENT. NO.	★ USAGE CODE	C. S. A.	P. O. R. D.	FACILITIES WHICH ARE UNSUITABLE	REMARKS CONCERNING UNSUITABILITY
Island of Maui Dept. of Health, T. H. County of Maui	High St., Wailuku, Maui	23	1-5-8-CC- MH-N	x		x	3-5-6-7-8-9-10-11 12
Plague Laboratory	Kahului, Maui	24	1-2	x	x		
Bacteriological Lab.	Malulani Hospital, Wailuku, Maui	25	1-2	x	x	x	1-2-5-6-9-11
Lahaina Health Center	Lahaina, Maui	26	1-4-5-8-CC	x	x		
Makawao Health Center	Maluhia Road, Makawao, Maui	27	1-3-4	x	x	x	1-2-3-5-7-8-14
Haiku Health Center	Libby, Kuiaha, Maui	28	1-4	x			
Waiakoa Health Center	Lower Kula Road, Waiakoa, Kula, Maui	29	1-4	x	x	x	3-5-6-7
Paia Health Center	Paia, Maui	30	1-3-4-5-8-CC	x		x	
TOTALS				1 5 2 1 3 4	4		
Island of Molokai Dept. of Health, T. H. Cy. of Maui, Branch	Kaunakakai, Molokai	31	1	x	x	x	1-2-3-5-6-7-8-9- 10-11-12
Irwin Health Center	Pukoo, Molokai	32	3-4-6	x	x		
TOTALS				2 1 1			
Island of Lanai Dept. of Health, T. H. Cy. of Maui, Branch	Lanai City, Lanai	33	1-3-4-5	x		x	
TOTALS				1		1	





TABLE 3 (Cont.)

## INVENTORY OF PUBLIC HEALTH CENTERS

SUBSIDIARY PUBLIC HEALTH CLINICS AND AUXILIARY PUBLIC HEALTH LABORATORIES, TERRITORY OF HAWAII, 1948

NAME OF FACILITY	ADDRESS	IDENT. NO.	★ USAGE CODE	C.	S.	A.	P.O.	R.	D.	FACILITIES WHICH ARE SUITABLE	REMARKS CONCERNING UNSUITABILITY
Island of Kauai Dept. of Health, T.H. County of Kauai	Tax Bldg., Lihue Kauai	34	1	x			x			x	3-5-6-7-8-10-11-14
Bacteriological Lab.	Terr. Cir. Court Bldg., Lihue, Kauai	35	1-2			x	x				
Kilauea Health Center	Kilauea Dispensary, Kilauea, Kauai	36	1-3-4-5		x				x		
Kapaa Health Center	Kapaa, Kauai	37	1-3-4-5-8 CC		x		x				
Koloa Health Center	Koloa, Kauai	38	1-3-4-5-8 CC		x			x			
Kalaheo Health Center	Kalaheo, Kauai	39	1-4-5		x		x				
Eleele Health Center	Eleele Dispensary, Eleele, Kauai	40	1-3-4-5-8 CC-MH		x				x	x	1-2-5-11-12
Waimea Health Center	Waimea, Kauai	41	1-4-8-MH		x		x				
Hanalei Health Center	Hanalei, Kauai	42	4		x		x				
Kealia Health Center	Kealia, Kauai	43	4-5		x				x		
Hanamaulu Health Cen.	Plantation Office Hanamaulu, Kauai	44	4		x				x		
New Mill Health Cen.	Plantation Cottage, New Mill, Kauai, (Eleele)	45	4		x				x		
TOTALS				1	10	1	6	1	5	2	
TERRITORY - TOTALS				7	31	7	19	9	17	23	





TABLE 3 (Cont.)

## INVENTORY OF PUBLIC HEALTH CENTERS

SUBSIDIARY PUBLIC HEALTH CLINICS AND AUXILIARY PUBLIC HEALTH LABORATORIES, TERRITORY OF HAWAII, 1948

★ Usage Code	★★ Type Facility Code	Code - Reasons for Unsuitability (cont.)
1 - Administration	C. Public Health Center (USPHS Definition)	4 - No electric wiring
2 - Laboratory	S. Subsidiary Public Health Clinic	5 - Inadequate office space for administration
3 - Prenatal Care	(Auxiliary, USPHS Definition)	
4 - Child Health	A. Auxiliary Public Health Laboratory	6 - Inadequate waiting room space
5 - Tuberculosis Control	(USPHS Definition)	7 - Inadequate clinic space
6 - Venereal Disease Control		8 - Inadequate conference and educational space
7 - Dental Hygiene		
8 - Other (Specify)	★★★ Ownership Code	9 - Inadequate laboratory space
CC - Crippled Children	P.O. Publicly Owned	10 - Inadequate auditorium space
MH - Mental Hygiene	R. Rented	11 - Inadequate library space
N - Neurology	D. Donated or Loaned	12 - Inadequate storage space
		13 - Inadequate parking space
		14 - Inadequate toilet facilities
	Code - Reasons for Unsuitability	15 - Location unsuitable for area population served
	1 - Structure not fire resistant	16 - Discontinuance of facility has been decided
	2 - Old, dilapidated building	
	3 - No hot water system	

(Cont.)





Legend

- + Area Hosp. (intermed)
- + Community Hosp.
- L Community Infirmary - H.C.



# Island of Oahu

Base Area No 1

Area Hospital Center - Honolulu

Length 44 Miles  
Width 30 Miles  
Area 603 Sq. Miles  
Population 358911 (1946)



## Legend

- + Area Hosp. (Intermed.)
- + Community Hosp.
- L Community Infirmary - H.C.



## Island of Hawaii

Intermediate Area No. 1

Area Hospital Center - Hilo

Length 93 Miles  
 Width 76 Miles  
 Area 4021 Sq. Miles  
 Population 73276 (1940)

Insert, Page 123-A

Map of Island of Oahu

Change Population 358,911 (1946) to Population 371,649 (1948).











Island of Kauai  
Intermediate Area No. 3  
Area Hospital Center - Lihue

Length	33 Miles	• + Area Hosp. (Intermed.)
Width	25 Miles	• + Community Hosp.
Area	551 Sq. Miles	• L Community Infirmary - H-C.
Population	35636 (1940)	



Island of Molokai  
Rural Area No. 1  
Area Hospital Center - Hoolehua

Length      38 Miles  
Width      10 Miles  
Area      259 Sq. Miles  
Population      5340

- Legend
- + Community Hosp.
  - L Community Infirmary - H.C.





Island of Lanai

Rural Area No. 2

Area Hospital Center - Lanai City

Length	18 Miles
Width	13 Miles
Area	141 Sq. Miles
Population	3720 (1940)

Legend	
•+	Community Hosp.
•L	Community Infirmary - H.C.

Insert, Page 127-A

Map of Island of Molokai



Change solid cross  at Hoolehua to an open cross  .





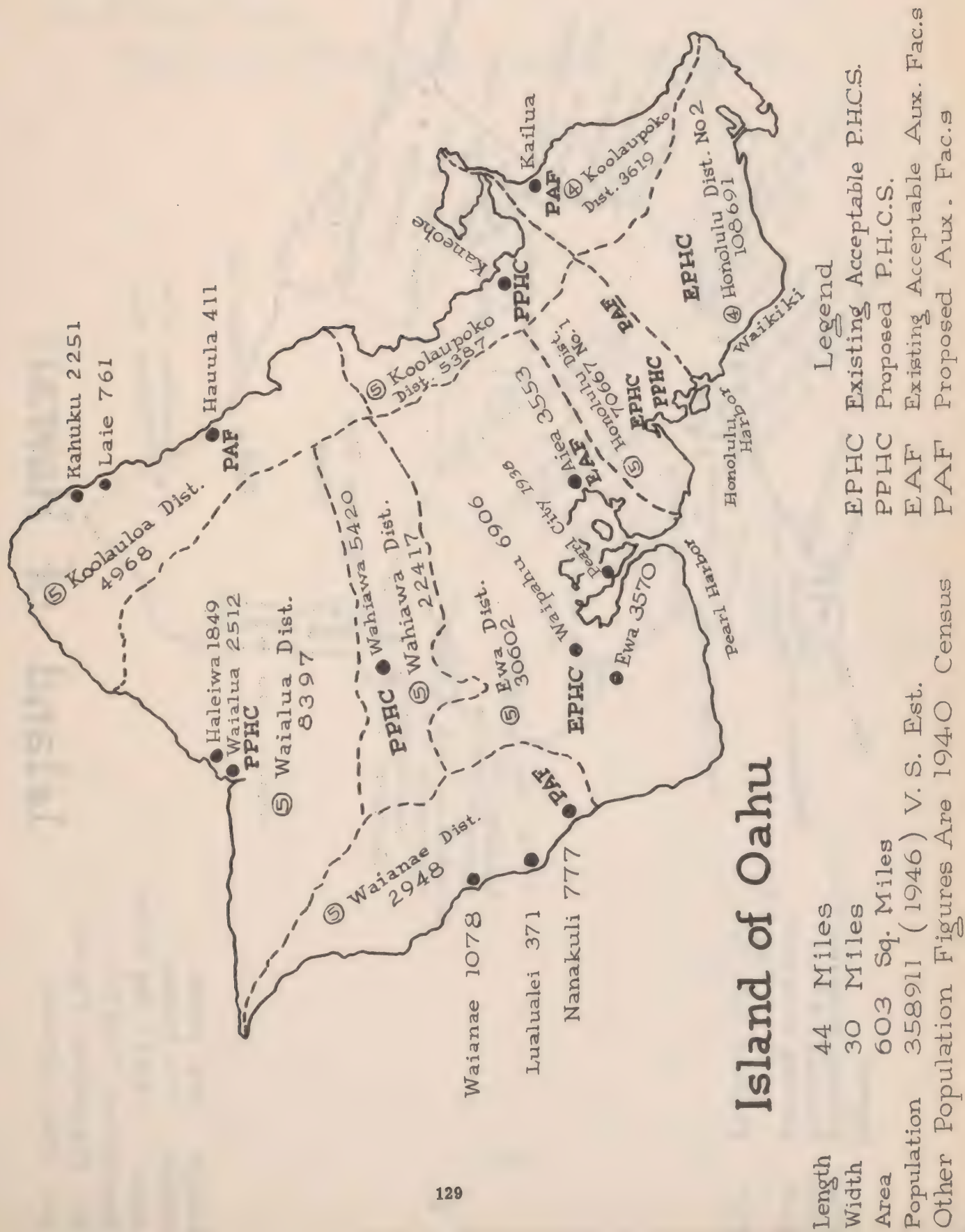
Insert, Page 128-A

Map of Island of Lanai

Change solid cross  at Lanai City to an open cross  .









# Desig. of Acceptable Existing and Programmed Health Centers

Exh. D-3 Page 2



## Island of Hawaii

### Legend

- EPHC Existing Acceptable P.H.C.s
- PPHC Proposed P.H.C.s
- EAF Existing Acceptable Aux. Fac.s
- PAF Proposed Aux. Fac.s

Length 93 Miles  
Width 76 Miles  
Area 4021 Sq. Miles  
Population 73276  
All Population Figures  
Are 1940 Census

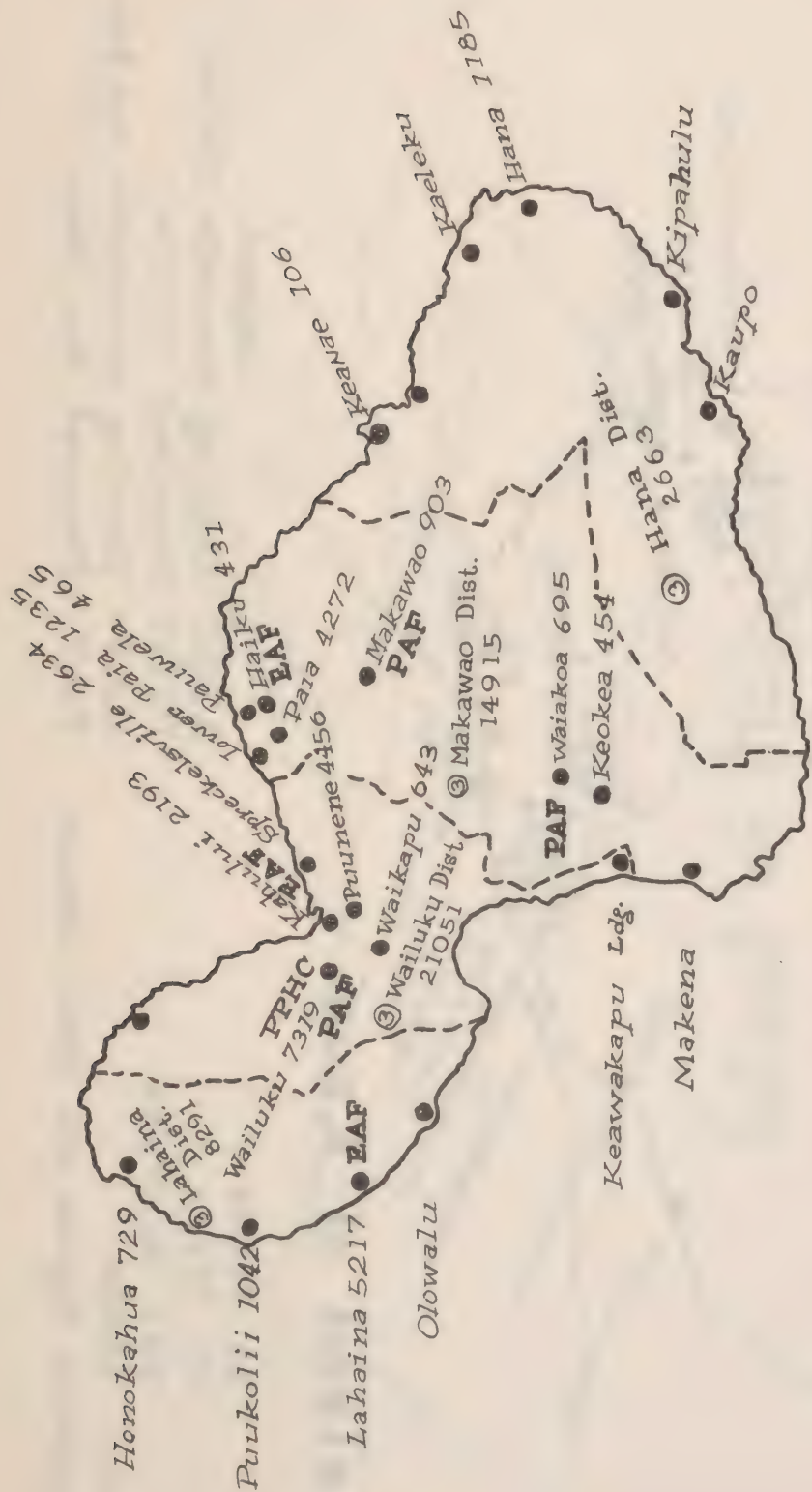
Insert, Page 129-A

Map of Island of Oahu

Change population 358,911 (1946) to population 371,649 (1948).





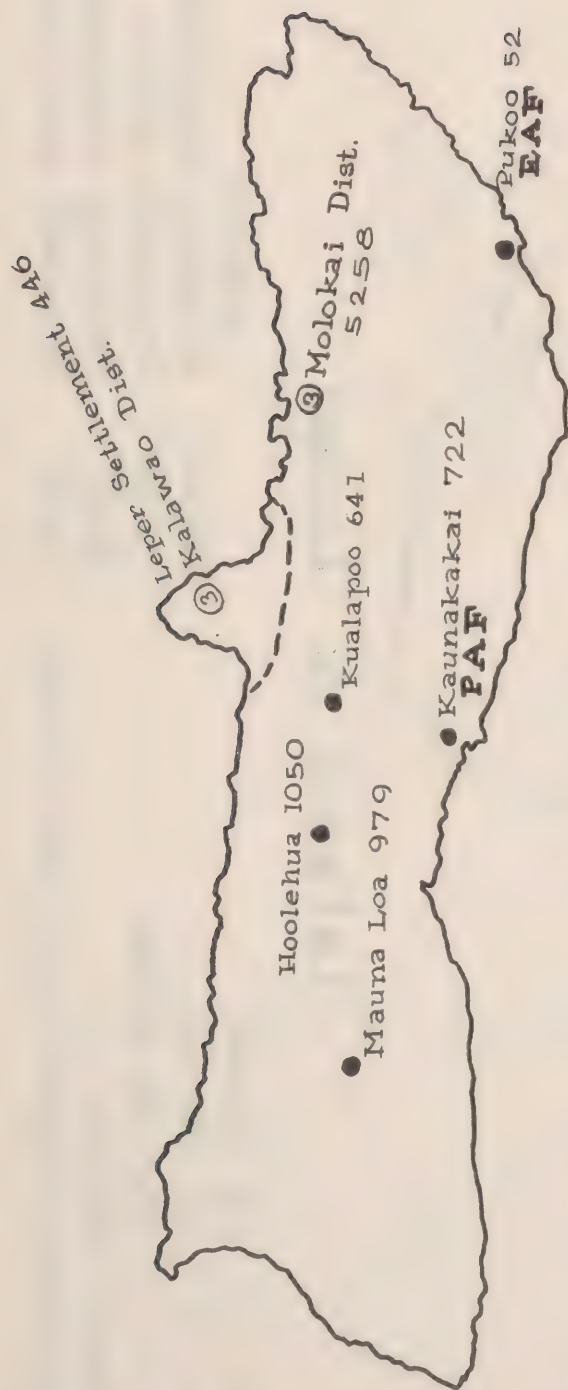


## Island of Maui

Length	48 Miles	Legend
Width	26 Miles	EPHC Existing Acceptable P.H.C.s
Area	728 Sq. Miles	PPHC Proposed P.H.C.s
Population	46919	EAF Existing Acceptable Aux. Fac.s
All Population Figures are 1940 Census		PAF Proposed Aux. Fac.s







## Island of Molokai

Length 38 Miles

Width 10 Miles

Area 259 Sq. Miles

Population 5340 (includes Kalawao Cy.)

All Population Figures are 1940 Census





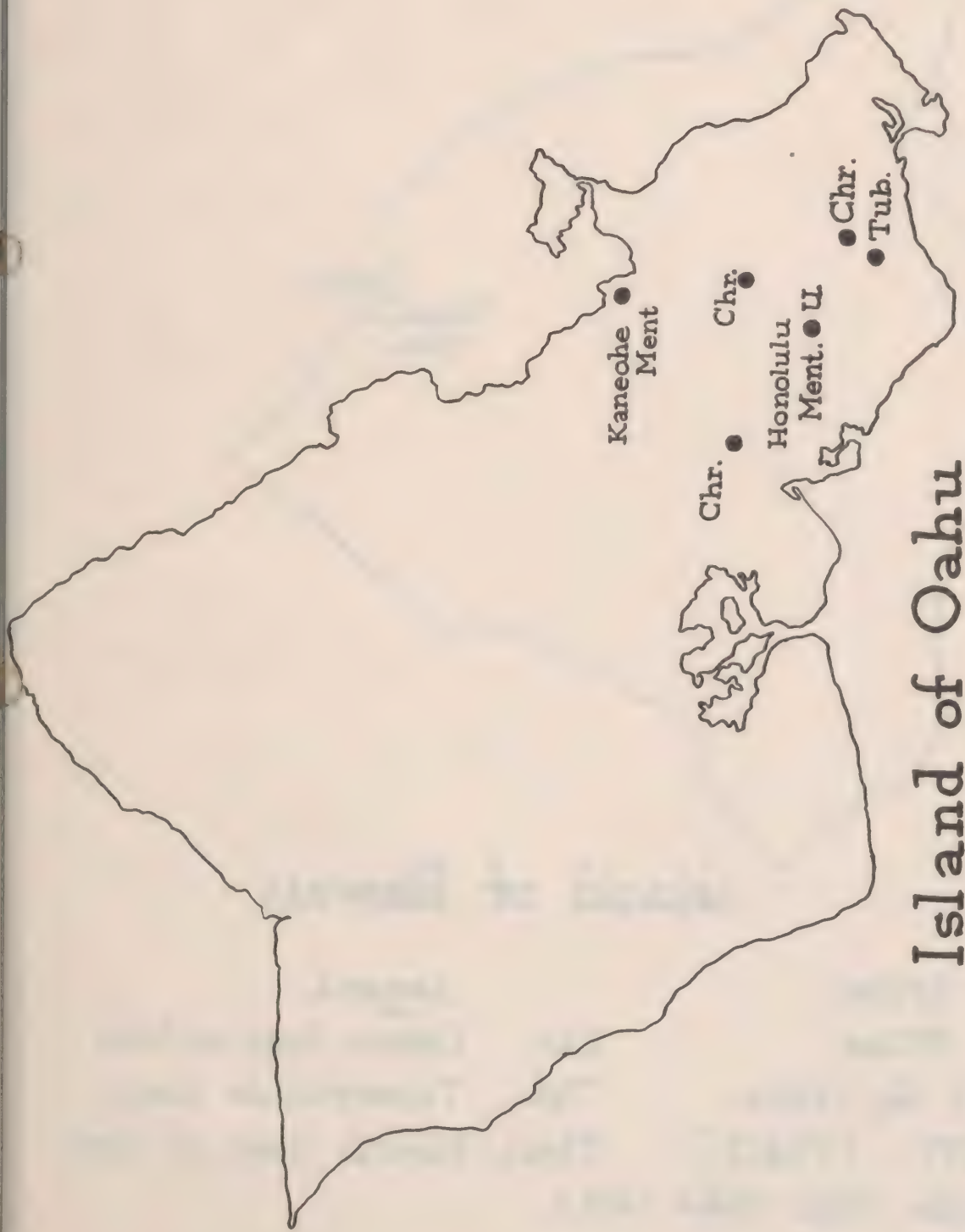
# Island of Lanai

Length	18 Miles
Width	13 Miles
Area	141 Sq. Miles
Population	3720
All Population Figures are	1940 Census

Legend	
EPHC	Existing Acceptable P.H.C.s
PPHC	Proposed P.H.C.s
EAF	Existing acceptable Aux. Facs.
PAF	Proposed Aux. Fac.s

Designation of Chronic Hospitals or Units  
 Tuberculosis Hospitals  
 Mental Hospitals or Units



Island of Oahu

Length	44 Miles	Legend	
Width	30 Miles	Chr.	Chronic Hosp. or Unit
Area	603 Sq. Miles	Tub.	Tuberculosis Hosp.
Population	358,911 (1940)	Ment.	Mental Hosp. or Unit.
Average T.B. Deaths	1940 - 1944 - 168		





Island of Hawaii

Length	93 Miles	Legend	
Width	76 Miles	Chr.	Chronic Hosp or Unit
Area	4021 Sq. Miles	Tub.	Tuberculosis Hosp.
Population	73276 (1940)	Ment.	Mental Hosp. or Unit
Average TB Deaths 1940-1944 - 43.2			

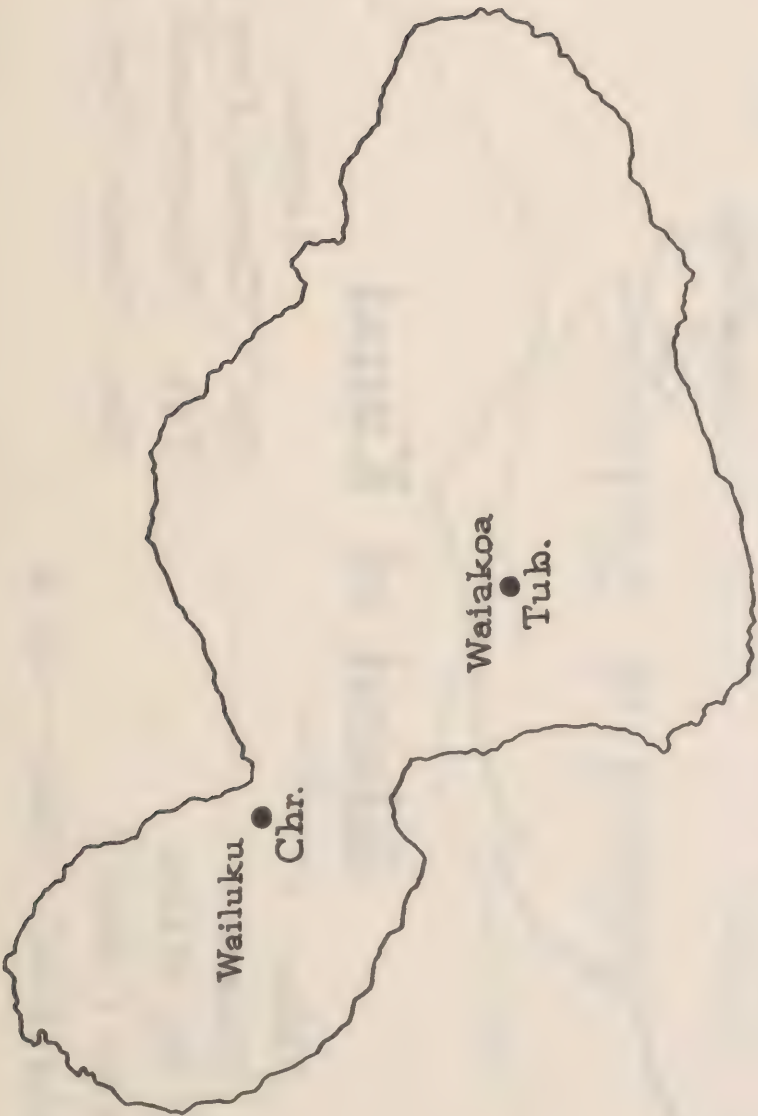
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A map of Island of Oahu

Change population 358,911 (1946) to population 371,649 (1948).







Island of Maui

Length	48	Miles	Legend	Chr. Chronic Hosp. or Unit
Width	26	Miles		Tub. Tuberculosis Hosp.
Area	728	Sq. Miles		Ment. Mental Hosp. or Unit.
Population	46919	(1940)		
Averag T.B. Deaths	1940 - 1944	- 31.2		



Tuberculosis Hospitals

Mental Hospitals or Units



# Island of Kauai

Length	Width	Area	Population	Average TB Deaths 1940 - 1944	Legend		
					Chr.	Tub.	Ment.
35 Miles	25 Miles	551 Sq. Miles	35636 (1940)	18.4	Chronic Hosp. or Unit	Tuberculosis Hosp.	Mental Hosp. or Unit



# Island of Molokai

Length	38	Miles	Legend		
Width	10	Miles	Chr.	Chronic Hosp. or Unit	
Area	259	Sq. Miles	Tub.	Tuberculosis Hosp.	
Population	5340	(1940)	Ment.	Mental Hosp. or Unit	
Average TB Deaths	1940 - 1944 - 2.4				





## Island of Lanai

Length	18	Miles	Legend		
			Chr.	Chronic Hosp. or Unit	
Width	13	Miles	Tub.	Tuberculosis Hosp.	
Area	141	Sq. Miles	Ment.	Mental Hosp. or Unit	
Population	3720	(1940)			
Average	T.B.	Deaths 1940 - 1944			- 1.2













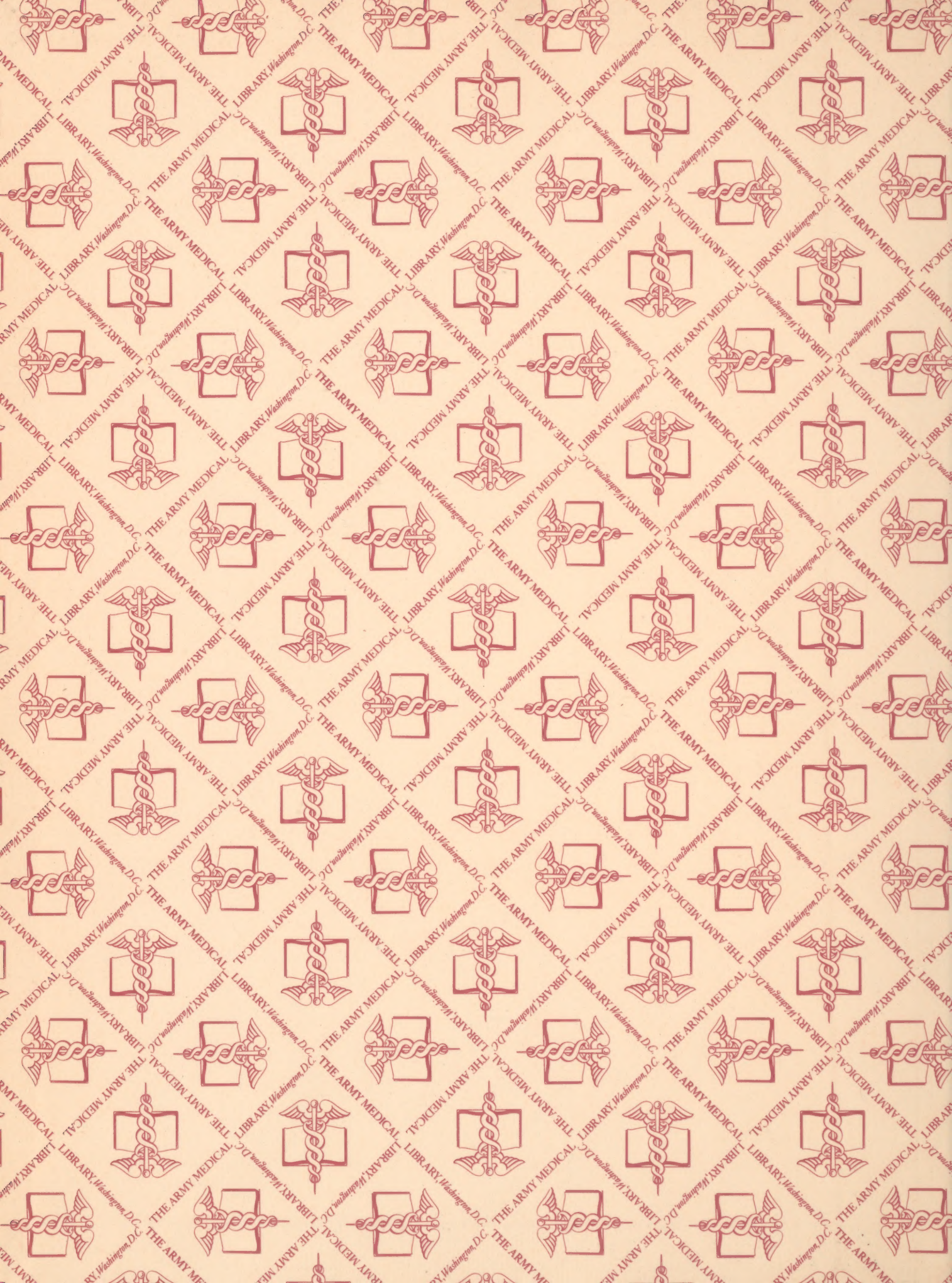




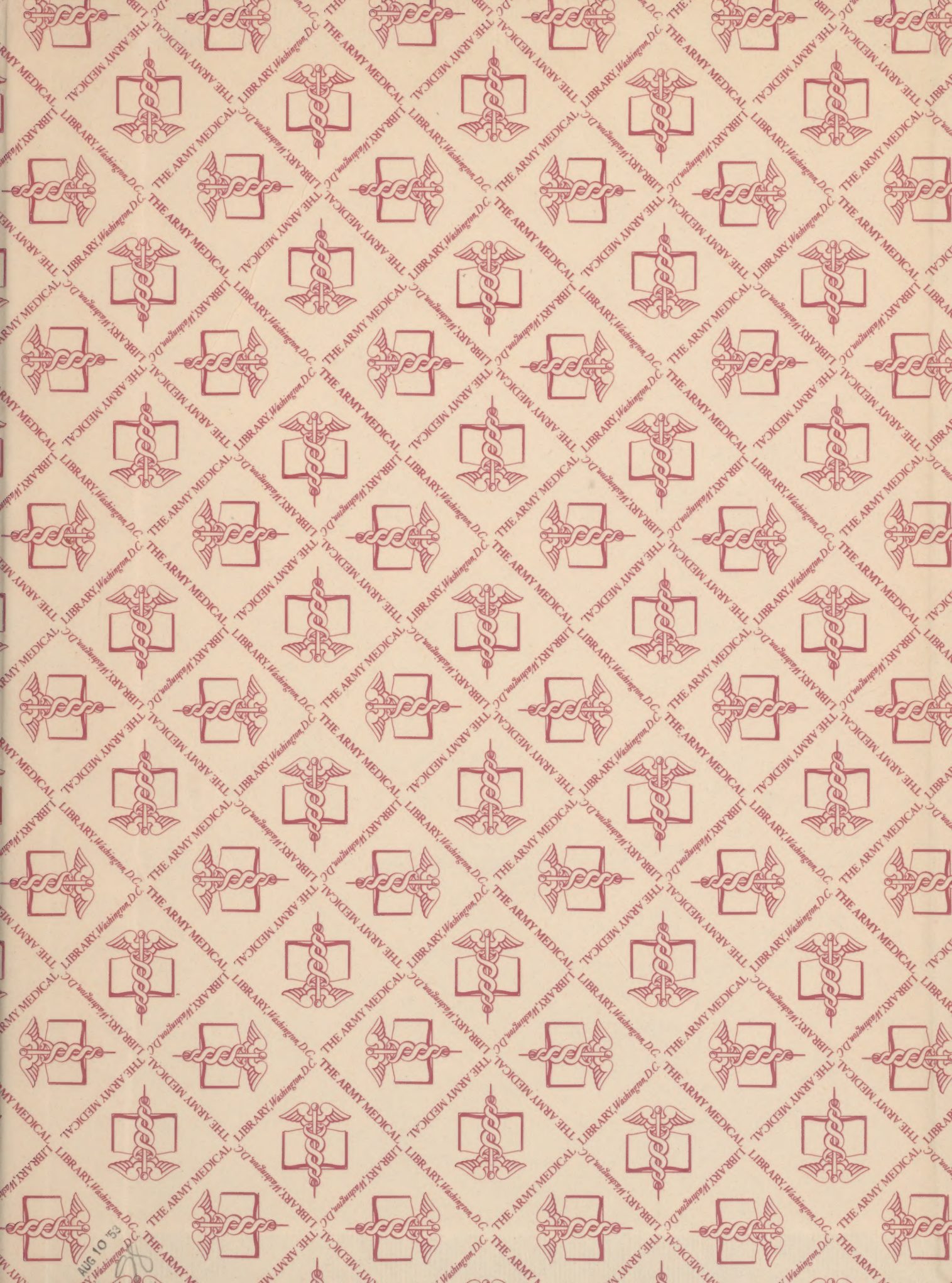












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